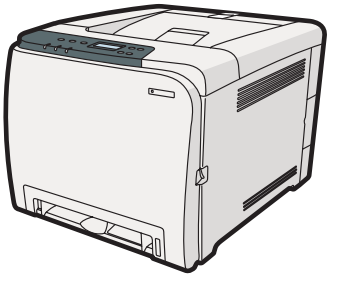
SP C242DN

Operating Instructions
Software Guide



1 Preparing for Printing
2 Setting Up the Printer Driver
3 Other Print Operations
4 Direct Printing from a Digital Camera (PictBridge)
5 Making Printer Settings Using the Control Panel
6 Monitoring and Configuring the Printer
7 Using a Print Server
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Read this manual carefully before you use this machine and keep it handy for future reference. For safe and correct use, be sure to read "Safety Information" before using the machine.

Introduction

This manual contains detailed instructions and notes on the operation and use of this machine. For your safety and benefit, read this manual carefully before using the machine. Keep this manual in a handy place for quick reference.

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Copying or printing the following items is generally prohibited by local law:
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The preceding list is meant as a guide only and is not inclusive. We assume no responsibility for its completeness or accuracy. If you have any questions concerning the legality of copying or printing certain items, consult with your legal advisor.

Important

Contents of this manual are subject to change without prior notice.
In no event will the company be liable for direct, indirect, special, incidental, or consequential damages as a result of handling or operating the machine.
For good print quality, the manufacturer recommends that you use genuine toner from the manufacturer.
The manufacturer shall not be responsible for any damage or expense that might result from the use of parts other than genuine parts from the manufacturer with your office products.

Some illustrations in this manual might be slightly different from the machine.

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How to Read This Manual

Symbols

This manual uses the following symbols:

Important

Indicates points to pay attention to when using the machine, and explanations of likely causes of paper misfeeds, damage to originals, or loss of data. Be sure to read these explanations.

Note

Indicates supplementary explanations of the machine's functions, and instructions on resolving user errors.

Reference

This symbol is located at the end of sections. It indicates where you can find further relevant information.

[ ]

Indicates the names of keys on the machine's display or control panels.

Region A (mainly Europe and Asia)

Region B (mainly North America)

Differences in the functions of Region A and Region B models are indicated by two symbols. Read the information indicated by the symbol that corresponds to the region of the model you are using. For details about which symbol corresponds to the model you are using, see p.7 "Model-Specific Information".

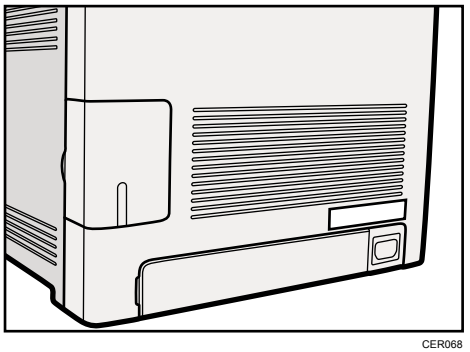
About IP Address

In this manual, "IP address" covers both IPv4 and IPv6 environments. Read the instructions that are relevant to the environment you are using.

Model-Specific Information

This section explains how you can identify the region your printer belongs to.

There is a label on the rear of the printer, located in the position shown below. The label contains details that identify the region your printer belongs to. Read the label.



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The following information is region-specific. Read the information under the symbol that corresponds to the region of your printer.

Region A (mainly Europe and Asia)

If the label contains the following, your printer is a region A model:

- CODE XXXX -22, -27
- 220-240V

Region B (mainly North America)

If the label contains the following, your printer is a region B model:

- CODE XXXX -17
- 120 V

Note

- Dimensions in this manual are given in two units of measure: metric and inch. If your printer is a Region A model, refer to the metric units. If your printer is a Region B model, refer to the inch units.

Manuals for This Printer

Read this manual carefully before you use this printer.

Refer to the manuals that are relevant to what you want to do with the printer.

Important

- Media differ according to manual.
- The printed and electronic versions of a manual have the same contents.
- Adobe Acrobat Reader/Adobe Reader must be installed in order to view the manuals as PDF files.
- A Web browser must be installed in order to view the html manuals.

Safety Information

Contains information about safe usage of this printer.

To avoid injury and prevent damage to the printer, be sure to read this.

Quick Installation Guide

Contains procedures for removing the printer from its box, and connecting it to a computer.

Hardware Guide

Contains information about paper; names and functions of the parts of this printer; and procedures such as installing options, replacing consumables, responding to error messages, and resolving jams.

Driver Installation Guide

Contains procedures for installing the PCL and DDST printer drivers. This manual is included on the driver CD-ROM.

PostScript 3 Installation Guide

Contains procedures for installing the PostScript 3 printer driver. This manual is included on the driver CD-ROM.

Software Guide (This manual)

Contains information about using this printer, its software, and its security functions.

List of Option

This section provides a list of option for this printer, and how it is referred to as in this manual.

Option List	Referred to as
Paper Feed Unit TK1010	Paper feed unit

Note

- For details about the specifications of this option, see "Specifications", Hardware Guide.

1. Preparing for Printing

This chapter explains the preparation procedure to use this printer.

Confirming the Connection Method

This printer supports network and USB connection.

Before installing the printer driver, check how the printer is connected. Follow the driver installation procedure that is appropriate to the connection method.

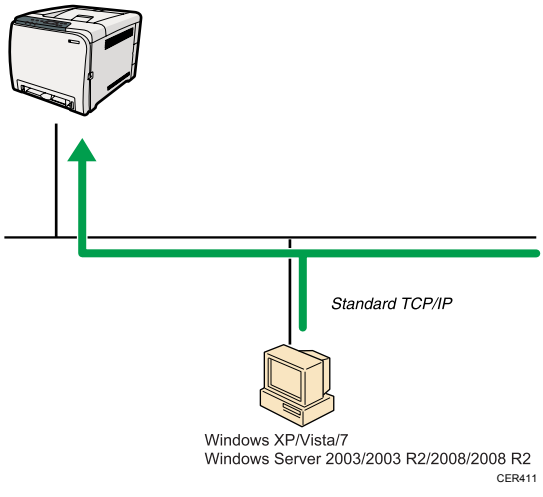
The printer drivers can be installed from the driver CD-ROM provided with this printer.

Network Connection

This printer can be used as a Windows printing port or network printer.

Using this printer as the Windows printing port

Network connections can be established via Ethernet.



Operating system

Windows XP/Vista/7, and Windows Server 2003/2003 R2/2008/2008 R2

Connection method

Ethernet (10BASE-T/100BASE-TX)

Available ports

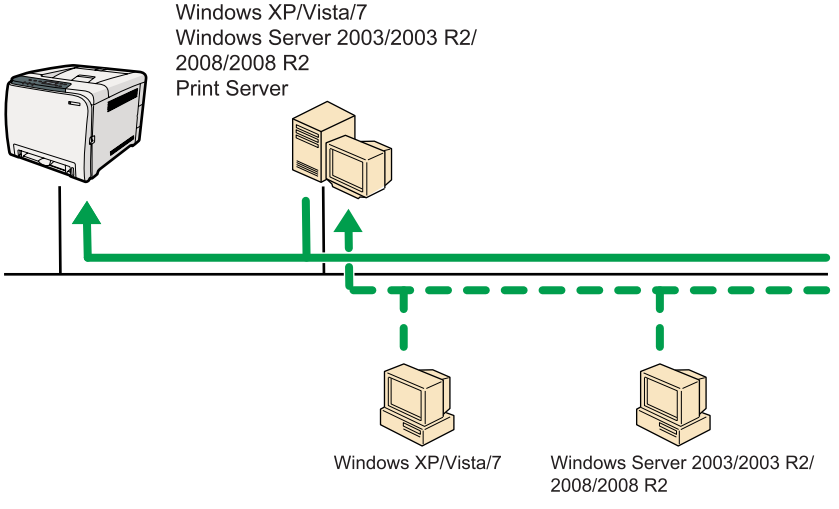
Standard TCP/IP

Reference

- For details about how to use this printer as the Windows printing port, see "Installing the Printer Driver When Using the Network Connection (Windows)", Driver Installation Guide or PostScript 3 Installation Guide.

Using as a network printer

This printer can be used as the Windows network printer.



Reference

- For details about how to use this printer as a Windows network printer, see "Installing the Printer Driver to Use As a Windows Network Printer", Driver Installation Guide or PostScript 3 Installation Guide.

USB Connection

This printer can be connected directly to a computer using a USB cable.

Reference

- For details about how to install the printer driver, see "Installing the Printer Driver When Using the USB Connection (Windows)", Driver Installation Guide or PostScript 3 Installation Guide.

Configuring Option and Paper Settings

Configure the printer driver according to the printer's option and paper settings.

Important

- **Manage Printers permission is required to change the printer properties in the [Printers] folder. Log on as an Administrators group member to acquire this permission.**
- **Make sure that [Enable bidirectional support] in the [Port] tab of the printer properties is selected. The printer cannot print if [Enable bidirectional support] is not selected.**

Conditions for Bidirectional Communication

Bidirectional communication allows the computer to retrieve the printer's paper settings, current status, and other information.

To establish bidirectional communication, the following conditions must be met:

- Operating system of the computer: Windows XP/Vista/7, and Windows Server 2003/2003 R2/2008/2008 R2
- When connected via a network

  The printer is connected via a standard TCP/IP port, and the default port name must not be changed.

  [Enable bidirectional support] in the [Port] tab of the printer properties is selected.
- When connected via USB

  The printer is connected to the computer's USB port using a USB interface.

  [Enable bidirectional support] in the [Port] tab of the printer properties is selected.

The following procedure is based on Windows XP as an example.

Printing is possible without bidirectional communication, but the computer will not be able to retrieve the status of print jobs. For this reason, we recommend you enable bidirectional communication when possible.

1. **On the [Start] menu, click [Printers and Faxes].**
2. **Click the printer icon you want to use.**
3. **On the [File] menu, click [Properties].**
4. **Click the [Accessories] tab.**
5. **Click [Update Now].**

   If bidirectional communication is not established, select the installed option manually.
6. **Click the [Paper Size Settings] tab.**
7. **Select the tray you want to use, then select the paper size, and then click [Update Now].**

   If bidirectional communication is not established, select the tray and paper size manually.

8. Click [OK] to close the printer properties dialog box.

2. Setting Up the Printer Driver

This chapter explains about accessing the printer properties and making the printer settings.

Accessing the Printer Properties

Windows XP and Windows Server 2003/2003 R2 - Making Printer Settings

Making the printer default settings - the [Printers and Faxes] window

Important

- To change the printer default settings including option configuration settings, log on using an account that has Manage Printers permission. Members of the Administrators group have Manage Printers permission by default.
- You cannot change the printer default settings for each user. Settings made in the printer properties dialog box are applied to all users.

1. **On the [Start] menu, click [Printers and Faxes].**

   The [Printers and Faxes] window appears.

2. **Click the icon of the printer you want to use.**
3. **On the [File] menu, click [Properties].**

   The printer properties dialog box appears.

4. **Make the necessary settings, and then click [OK].**

Note

- Settings you make here are used as the default settings for all applications.
- When accessing the PostScript3 printer properties, do not change settings for [Form to Tray Assignment].

Reference

- For details about settings, see the printer driver Help.

Making the printer default settings - Printing Preferences

Important

- You cannot change the printer default settings for each user. Settings made in the printer properties dialog box are applied to all users.

1. **On the [Start] menu, click [Printers and Faxes].**

   The [Printers and Faxes] window appears.

2. **Click the icon of the printer you want to use.**
3. **On the [File] menu, click [Printing Preferences...].**

   The [Printing Preferences] dialog box appears.

4. **Make the necessary settings, and then click [OK].**

Note

- Settings you make here are used as the default settings for all applications.

Reference

- For details about settings, see the printer driver Help.

Making printer settings from an application

You can make printer settings for a specific application.

To make printer settings for a specific application, open the [Printing Preferences] dialog box from that application. The following explains how to make settings for the WordPad application provided with Windows XP.

1. **On the [File] menu, click [Print...].**

   The [Print] dialog box appears.

2. **Select the printer you want to use in the [Select Printer] list, and then click [Preferences].**
3. **Make the necessary settings, and then click [OK].**

Note

- The procedure to open the [Printing Preferences] dialog box may vary depending on the application. For details, see the manuals provided with the application you use.
- Any settings you make in the procedure above are valid for the current application only.
- General users can change the properties displayed in the [Print] dialog box of an application. Settings made here are used as defaults when printing from this application.

Reference

- For details about settings, see the printer driver Help.

Windows Vista/7 and Windows Server 2008/2008 R2 - Making Printer Settings

Making the printer default settings - the printer properties

Important

- **To change the printer default settings including option configuration settings, log on using an account that has Manage Printers permission. Members of the Administrators group have Manage Printers permission by default.**
- **You cannot change the printer default settings for each user. Settings made in the printer properties dialog box are applied to all users.**

1. **On the [Start] menu, click [Control Panel].**

   The [Control Panel] window appears.

2. **Click [Printer] in "Hardware and Sound".**

   - If using Windows 7, click [View devices and printers] in "Hardware and Sound".
   - If using Windows Server 2008 R2, click [View devices and printers] in "Hardware".

3. **Right-click the icon of the printer you want to use, and then click the [Properties].**

   If using Windows 7 or Windows Server 2008 R2, right-click the icon of the printer you want to use, and then click [Printer properties].

   The printer properties dialog box appears.

4. **Make the necessary settings, and then click [OK].**

Note

- Settings you make here are used as the default settings for all applications.
- When accessing the PostScript3 printer properties, do not change settings for [Form to Tray Assignment].

Reference

- For details about settings, see the printer driver Help.

Making the printer default settings - Printing Preferences

Important

- **You cannot change the printer default settings for each user. Settings made in the printer properties dialog box are applied to all users.**

1. **On the [Start] menu, click [Control Panel].**

   The [Control Panel] window appears.

2. **Click [Printer] in "Hardware and Sound".**
   - If using Windows 7, click [View devices and printers] in "Hardware and Sound".
   - If using Windows Server 2008 R2, click [View devices and printers] in "Hardware".
3. **Right-click the icon of the printer you want to use, and then click [Printing Preferences...].**

   If using Windows 7 or Windows Server 2008 R2, right-click the icon of the printer you want to use, and then click [Printing preferences].

   The [Printing Preferences] dialog box appears.
4. **Make the necessary settings, and then click [OK].**

Note

- Settings you make here are used as the default settings for all applications.

Reference

- For details about settings, see the printer driver Help.

Making printer settings from an application

You can make printer settings for a specific application.

To make printer settings for a specific application, open the [Printing Preferences] dialog box from that application. The following explains how to make settings for the WordPad application.

1. **On the [File] menu, click [Print...].**

   The [Print] dialog box appears.
2. **Select the printer you want to use in the [Select Printer] list, and then click [Preferences].**
3. **Make the necessary settings, and then click [OK].**

Note

- The procedure to open the [Printing Preferences] dialog box may vary depending on the application. For details, see the manuals provided with the application you use.
- Any settings you make in the procedure above are valid for the current application only.
- General users can change the properties displayed in the [Print] dialog box of an application. Settings made here are used as defaults when printing from this application.

Reference

- For details about settings, see the printer driver Help.

3. Other Print Operations

If a Paper Mismatch Occurs

Use the form feed function to continue printing when a paper size or paper type error occurred.

This function can be performed using the control panel.

Important

- **If the [Auto Continue] setting under [System] is enabled, the printer ignores the paper type and size settings and prints on whatever paper is loaded. Printing stops temporarily when the error is detected, and restarts automatically after about ten seconds using the settings made on the control panel.**

Reference

- For details about [Auto Continue], see p.57 "System Menu".

Performing Form Feed

Use the following procedure to perform form feed.

1. **While an error message is displayed on the control panel, press the [Stop/Start] key.**

   Printing starts.

Note

- If you want to print after adding paper to the tray, load the correct paper, and then press the [Stop/Start] key.
- If a tray with a smaller paper size is selected, the print job may be cut short, or other problems may occur.

Canceling a Print Job

Use the following procedure to cancel a print job that is related to the printer error occurred.

1. **Press the [Job Reset] key.**
2. **Press the [OK] key.**

Canceling a Print Job

This section describes how to stop printing from the control panel or computer.

Canceling a Print Job Using the Control Panel

You can cancel a print job using the control panel, if transferring print job is not completed.

1. **Press the [Job Reset] key.**
2. **Press the [OK] key.**

Windows - Canceling a Print Job from the Computer

You can cancel a print job from the computer if transferring print job is not completed.

The following procedure is based on Windows XP as an example.

1. **Double-click the printer icon on the Windows task tray.**

   A window appears, showing all print jobs currently queued for printing.

   Check the current status of the job you want to cancel.
2. **Select the name of the job you want to cancel.**
3. **On the [Document] menu, click [Cancel].**

Note

- In Windows Vista/7 and Windows Server 2008/2008 R2, click [Cancel Printing] on the [Document] menu.
- You can also open the print job queue window by double-clicking the printer icon in the [Printers and Faxes] window (the [Printers] window under Vista/7 and Windows Server 2008/2008 R2).
- You cannot stop printing data that has already been processed. For this reason, printing may continue for a few pages after you cancel printing.
- A print job containing a large volume of data may take considerable time to stop.
- If you cancel a Locked Print job, the printer might have already stored some pages of the job as a Locked Print file. If this happens, use the control panel to delete the Locked Print file.

Reference

- For details about deleting a Locked Print file, see p.23 "Deleting a Locked Print File".

Printing Confidential Documents

If you use the Locked Print function, you can password protect your print job.

This means that your job is printed only after you enter the password using the printer's control panel.

This function prevents unauthorized users from seeing sensitive documents at the printer.

Important

- **This function is available only when using the PCL printer driver.**

Storing a Locked Print File

This section describes how to store a Locked Print file in the printer using the printer driver.

1. **Open the file you want to print on your computer.**
2. **Open the printer driver's properties.**
3. **Click the [Setup] tab, and then select [Locked Print].**

   The [User ID:] and [Password:] text boxes become available.

   The [User ID:] text box contains the login user name of your computer account or the user ID that you used for the previous Locked Print job.
4. **Type the password (containing 4 to 8 digits) and user ID (containing 1 to 9 alphanumeric characters), and then click [OK].**

   The user ID will be used to identify your Locked Print file on the printer's control panel.
5. **Execute a print command.**

   The print job is stored in the printer as a Locked Print file. You can print the file by entering the password using the control panel.

Note

- The Locked Print file is automatically erased from the printer's memory when it is printed out, or when the printer's power is turned off.
- The printer can store a maximum of 5 jobs or 5 MB of Locked Print data at a time.
- Even if the printer cannot store any more Locked Print files, the printer holds a new Locked Print file for the period of time specified in [Timeout:LockPrt] under [Host Interface] before canceling the job. Within this time, you can print or delete the new Locked Print file. You can also print or delete an existing Locked Print file so that the new Locked Print file can be stored in the printer.
- When a Locked Print job is canceled, the printer automatically records the cancellation in a log. You can use this log to identify which Locked Print jobs have been canceled.

Reference

- For details about [Timeout:LockPrt], see p.60 "Host Interface Menu".

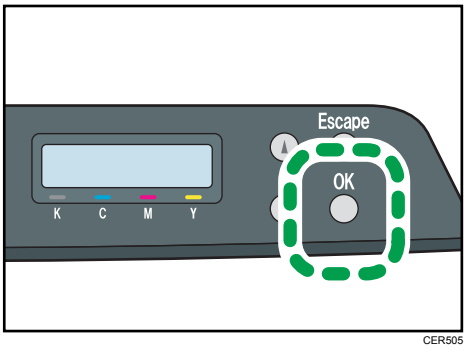
Printing a Locked Print File

When there is a Locked Print file stored in the printer, "Locked Print Job Press OK" appears on the printer's control panel display.

```
Locked Print Job
Press OK
```

Use the following procedure to unlock and print the Locked Print file.

1. **When the Locked Print message is displayed, press the [OK] key.**



2. **Press the [▲][▼] keys to select the file you want to print, and then press the [OK] key.**

```
Locked Print:
HH:MM User Code
```

"HH:MM" is the time when the Locked Print file was stored, and "User Code" is the user ID entered using the printer driver.

3. **Press the [▲][▼] keys to select [Print Job], and then press the [OK] key.**
4. **Enter the password using the [▲][▼] keys.**
   - Press the [OK] key to input each digit.
   - Press the [Escape] key to discard the current digits and exit to the previous level of the menu tree.
5. **Press the [OK] key.**

   The Locked Print file is printed.

Note

- Use the following keys to cancel operation:
  - [Escape]: Cancels the operation and returns the display to the previous screen.
  - [Menu]: Cancels the operation and returns the display to the initial screen.
- If the printer is currently printing, you cannot print a Locked Print file.
- While entering a password using the control panel, the printer cannot begin other print jobs.

- The Locked Print file is automatically erased from the printer's memory when it is printed out, or when the printer's power is turned off.

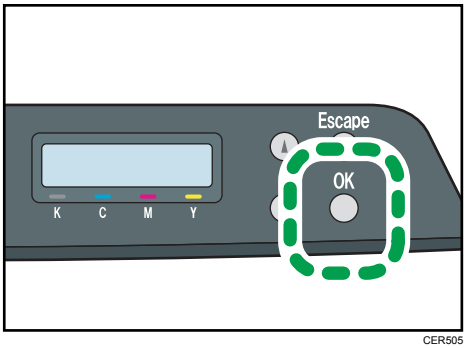
Deleting a Locked Print File

When there is a Locked Print file stored in the printer, "Locked Print Job Press OK" appears on the printer's control panel display.

```
Locked Print Job
Press OK
```


Use the following procedure to delete a Locked Print file. You do not need to enter a password to delete a Locked Print file.

1. **When the Locked Print message is displayed, press the [OK] key.**



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2. **Press the [▲][▼] keys to select the file you want to delete, and then press the [OK] key.**

```
Locked Print:
HH:MM User Code
```

"HH:MM" is the time when the Locked Print file was stored, and "User Code" is the user ID entered using the printer driver.

3. **Press the [▲][▼] keys to select [Delete Job], and then press the [OK] key.**
4. **Press the [▲][▼] keys to select [Execute], and then press the [OK] key.**

The Locked Print file is deleted.

If there are Locked Print files/logs remaining in the printer, the display returns to the list of Locked Print files/logs. If there are none remaining, the display returns to the initial screen.

Note

- Use the following keys to cancel operation:
  - [Escape]: Cancels the operation and returns the display to the previous screen.
  - [Menu]: Cancels the operation and returns the display to the initial screen.

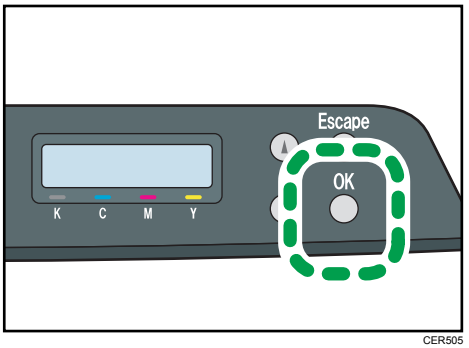
Checking which Locked Print File Jobs Have Been Canceled

When a Locked Print job is canceled, the printer automatically records the cancellation in a log. If the printer has created a cancellation log, "Locked Print Job Deleted." will appear on the control panel display.

```
Locked Print Job
Deleted.
```

Use the following procedure to check which Locked Print file jobs have been canceled.

1. **When the Locked Print message is displayed, press the [OK] key.**



2. **Press the [▲][▼] keys to find a file whose name starts with an "!" mark.**

   The "!" mark indicates that the job has been canceled.

   ```
   Locked Print:
   !HH:MM User Code
   ```

   "HH:MM" is the time when the Locked Print file was stored, and "User Code" is the user ID entered using the printer driver.

   To delete the log entry, proceed to the following steps.

3. **Press the [OK] key.**
4. **Confirm that the log entry you want to delete is selected, and then press the [OK] key.**
5. **Press the [▲][▼] keys to select [Execute], and then press the [OK] key.**

   The log is deleted.

   If there are Locked Print logs/files remaining in the printer, the display returns to the list of Locked Print logs/files. If there are none remaining, the display returns to the initial screen.

Note

- Use the following keys to cancel operation:
  - [Escape]: Cancels the operation and returns the display to the previous screen.
  - [Menu]: Cancels the operation and returns the display to the initial screen.

- The printer keeps a log of the 10 most recent canceled jobs. If a Locked Print file is canceled when the printer's log is already full, the oldest log will be deleted automatically.
- The message "Locked Print Job Deleted." disappears when all log entries are cleared.
- The log will be cleared when the printer is turned off.

Combining Multiple Pages into Single Page

This section explains how to print multiple pages onto a single sheet. The combine printing function allows you to economize on paper by printing multiple sheets at reduced size onto a single sheet.

Important

- **The following procedure is based on Windows XP as an example. Procedures might vary depending on the operating system you are using.**
- **This function is not available if [Booklet] is selected from [Duplex:], or [Zoom %] is selected in [Paper].**

For the PCL printer driver:

1. **In the application, on the [File] menu, click [Print].**

   The [Print] dialog box appears.

2. **Select the printer, and then open the [Printing Preferences] dialog box in the document's native application.**

   The [Printing Preferences] dialog box appears.

3. **On the [Setup] tab, in the [Layout:] list, select a layout type.**
4. **Select [Draw Frame Border] if you need a frame around each page.**
5. **After making any additional settings, click [OK].**
6. **Start printing.**

Note

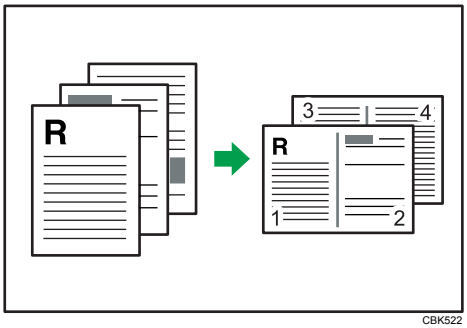
- If the document contains pages with different original sizes, page breaks may occur.
- If the application you are using also has a combine function, disable it. If the application's combine function is also enabled when the driver's combine function enabled, incorrect printing is likely.

Types of Combine Printing

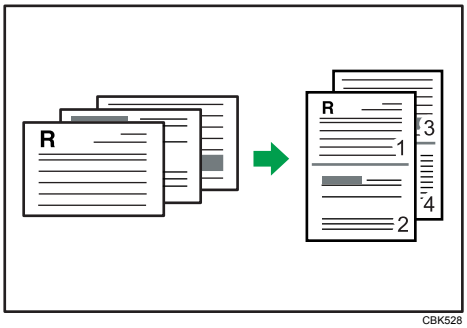
This section explains the different methods of combine printing that are available. Combine printing allows you to print 2, 4, 6, 9, or 16 pages at reduced size onto a single sheet and to specify a page ordering pattern for the combination. For 2 pages per sheet combine, you can select from two patterns. When combining 4 or more pages onto a single sheet of paper, four patterns are available. The following illustrations show examples of page ordering patterns for 2- and 4- page combinations when using the PCL printer driver.

2 Pages per Sheet

- Right, then Down

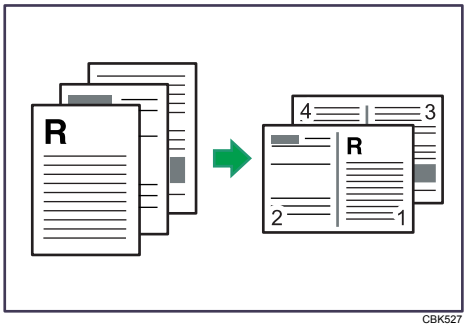


CBK522

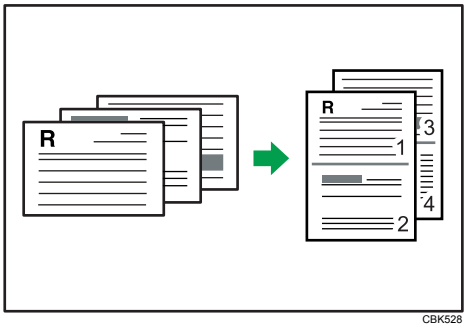


CBK528

- Left, then Down



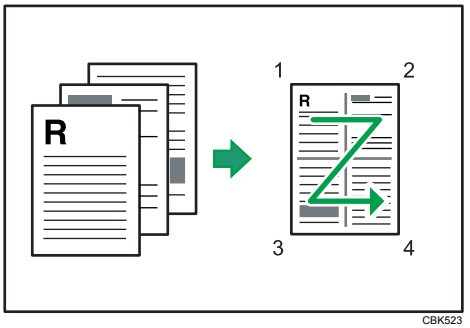
CBK527



CBK528

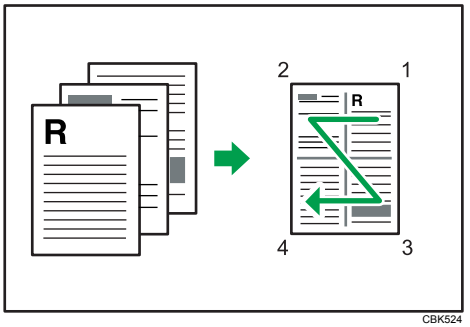
4 Pages per Sheet

- Right, then Down



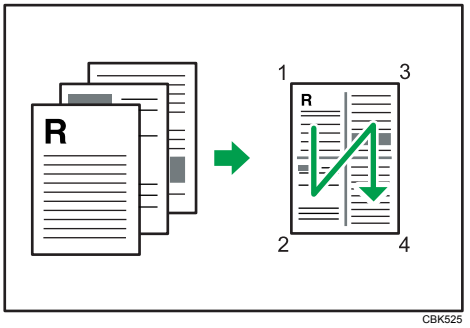
CBK523

- Left, then Down



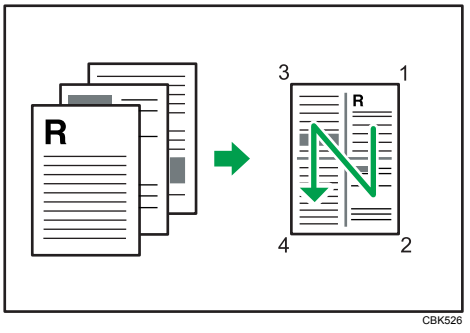
CBK524

- Down, then Right



CBK525

- Down, then Left



CBK526

Restricting Printer Functions According to User

You can set the printer to require a user code when someone tries to use certain printer functions.

Important

- **When print jobs are restricted, you can only authenticate through the PCL printer driver. Printing from the PostScript 3 printer driver will not be possible.**

Use of the following functions can be restricted:

- PictBridge printing
- Printing (both color and black-and-white)
- Color printing (black-and-white printing is still allowed)

To enable this setting, you must first configure the printer via Web Image Monitor.

Enabling the User Restriction Settings

This section describes how to set the printer to permit only authorized users to use certain printer functions.

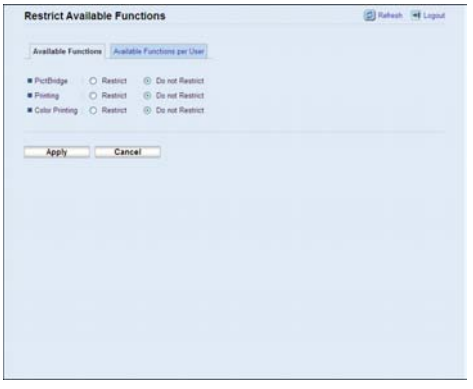
Using Web Image Monitor, enable user restriction for all or some of the functions listed below, and then register users who can use those functions.

- PictBridge printing
- Printing (both color and black-and-white)
- Color printing (black-and-white printing is still allowed)

For each user, you can specify which functions are available upon authentication. A maximum of 30 users can be registered.

1. **Start the Web browser, and access the printer by entering its IP address.**
2. **Click [Restrict Available Functions].**
3. **Enter the administrator password if required, and then [Apply].**

4. **Under "Available Functions", select [Restrict] for the functions you want to restrict, and then click [Apply].**

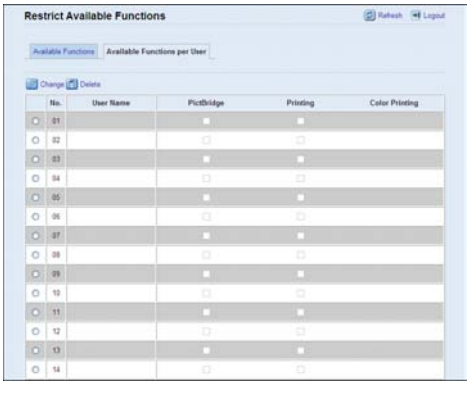


Select [Do not Restrict] for the functions you do not want to restrict.

The user restriction setting is enabled for the selected function. Proceed to the following steps to register users.

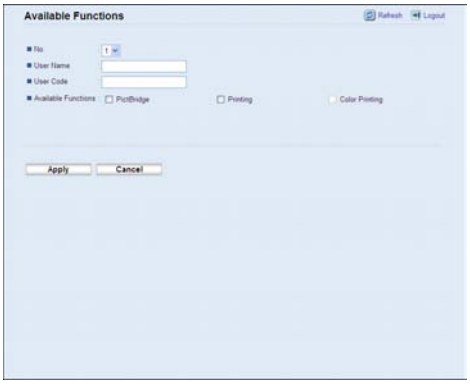
5. **Click [Available Functions per User].**

A list of currently registered user entries appears.



6. **Select a user entry, and then click [Change].**

7. **Type a unique user name in [User Name] using up to 16 alphanumeric characters and a unique user code in [User Code] using up to 8 digits.**



The user code will be used to authenticate users when they try to use a restricted function.

8. **Select the functions you want to make available for the user upon authentication.**

Unselected functions will be unavailable to users authenticated under this user code.

9. **Click [Apply].**
10. **Close the Web browser.**

Note

- You must enter both a user name and user code to register a user entry.
- No two user entries can have the same user name or user code.

Reference

- For details about using Web Image Monitor, see p.71 "Using Web Image Monitor".

Modifying user entries

This section describes how to modify user entries.

1. **Start the Web browser, and access the printer by entering its IP address.**
2. **Click [Restrict Available Functions].**
3. **Enter the administrator password if required, and then [Apply].**
4. **Click [Available Functions per User].**

A list of currently registered user entries appears.

5. **Select the entry to modify, and then click [Change].**
6. **Modify settings as necessary.**
7. **Click [Apply].**
8. **Close the Web browser.**

Reference

- For details about using Web Image Monitor, see p.71 "Using Web Image Monitor".

Deleting user entries

This section describes how to delete user entries.

1. **Start the Web browser, and access the printer by entering its IP address.**
2. **Click [Restrict Available Functions].**
3. **Enter the administrator password if required, and then [Apply].**
4. **Click [Available Functions per User].**

   A list of currently registered user entries appears.
5. **Select the entry to delete, and then click [Delete].**
6. **Confirm that the entry you have selected is the entry that you want to delete.**
7. **Click [Apply].**
8. **Close the Web browser.**

Reference

- For details about using Web Image Monitor, see p.71 "Using Web Image Monitor".

When Printer Functions are Restricted

When a printer function is restricted, only authorized users are able to use that function.

Depending on the restricted function, users will be authenticated from the printer's control panel or in the printer driver.

Important

- **When print jobs are restricted, you can only authenticate through the PCL printer driver. Printing from the PostScript 3 printer driver will not be possible.**

The table below shows the functions that can be restricted, and how users can be authenticated to use those functions.

Restricted function	Authentication method
• PictBridge printing	The user must enter a valid user code from the control panel when a digital camera is connected to the printer.
• Printing (both color and black-and-white) • Color printing (black-and-white printing is still allowed)	The user must enter a valid user code in the printer driver before executing a print command.

Authenticating through the control panel

1. **When the printer requests for a user code, enter a user code using the [▲][▼] keys.**

   If you enter a wrong user code, the printer denies the authentication.
2. **Press the [OK] key.**

Authenticating through the printer driver

1. **Open the file you want to print on your computer.**
2. **Open the printer driver's properties.**
3. **Click the [Valid Access] tab.**
4. **Type the user code using 1 to 8 digits, and then click [OK].**
5. **Execute a print command.**

   If an incorrect user code is entered, the job will be canceled automatically (there will be no error message).

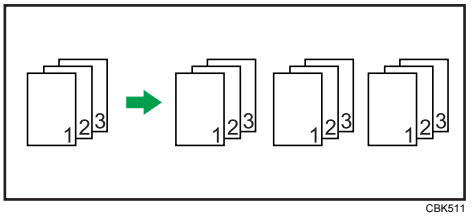
Collate

Use the Collate function to print documents into page-ordered sets.

Important

- **If the [Ignore Application Collate] check box is cleared, the application's collate settings are applied.**

Output can be assembled as sets in sequential order.



CBK511

Note

- If Auto Continue occurs on the first set, the Collate will be canceled.
- If a form feed occurs on the first set, the Collate will be canceled.

Reference

- For details about printing method, see the printer driver Help.

Cover

Use the Cover function to insert cover sheets using paper in a specified tray.

Note

- The cover sheet's size and orientation must be the same as those of the body paper.

Reference

- For details about printing methods, see the printer driver Help.

Saving on Toner When Printing

Use the Economy Color function to save on toner.

Reference

- For details about the setting method, see the printer driver Help.

Printing a Document Using Only Specific CMYK Colors

When you print a color document, usually the cyan, magenta, yellow, and black colors are used. However, you can choose to use only a specific color or colors when printing.

Important

- **This function is not available under Mac OS X.**

Note

- This function is available only if color printing is specified.

Reference

- For details about the setting method, see the printer driver Help.

Watermark

Use the Watermark function to print watermark text.

Note

- If the watermark size is larger than the paper size, watermarks cannot be printed properly.

Reference

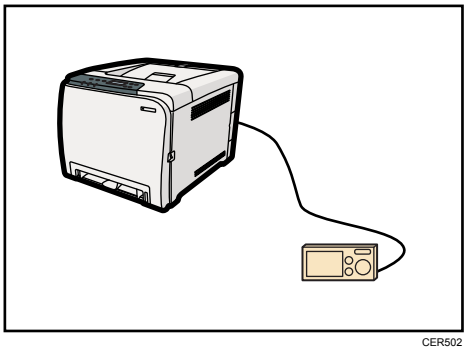
- For details about the setting method, see the printer driver Help.

4. Direct Printing from a Digital Camera (PictBridge)

This chapter explains how to print directly from a digital camera.

What Is PictBridge?

You can connect a PictBridge-compatible digital camera to this printer using a USB cable. This allows you to print photographs taken using the digital camera directly by operating the digital camera.



CER502

Note

- Check your digital camera is PictBridge-compatible.
- Up to 999 images can be sent from the digital camera to the printer during one print transaction. If an attempt is made to send more images, an error message is sent to the camera and printing fails.
- Since printing conditions are specified on the digital camera, specifiable parameters depend on the digital camera. For details, see the manuals provided with the digital camera.
- This function is compatible with USB 2.0.

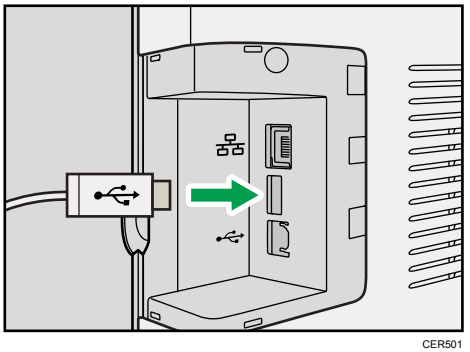
PictBridge Printing

Use the following procedure to start PictBridge printing on this printer.

Important

- Memory overflow errors can occur when printing a high-resolution image. If this happens, reduce the size of the data, and then try the operation again.
- Use the USB cable bundled with your digital camera.
- Make sure your digital camera supports PictBridge.
- Do not disconnect the USB cable while data is being sent. If you do, printing will fail.

1. Confirm that both the printer and the digital camera are turned on.
2. Connect the USB cable to the USB host interface board on the printer and to your digital camera.



CER501

When the printer recognizes the digital camera as a PictBridge device, "PictBridge Connecting...", then "Ready" will appear on the printer's control panel.

3. On your digital camera, select the images you want to print, and then specify the printing conditions.
4. The printer receives settings from the digital camera and starts printing.

Note

- Some digital cameras require settings for manual PictBridge operation. For details, see the manual provided with the digital camera.
- Some digital cameras require to turn the power switch off for a manual PictBridge operation. For details, see the manual provided with the digital camera.
- Some digital cameras need to be switched off when connecting to the printer. For details, see the manual provided with the digital camera.

Reference

- For details about how to stop printing data, see p.19 "Canceling a Print Job".

What Can Be Done on This Printer

This printer can perform the following functions using its PictBridge feature.

The settings available for these functions are as follows:

- Single image printing
- Selected image printing
- All image printing
- Index printing
- Copies
- Paper size
- N-up layout

Note

- The setting parameters and their names may vary depending on the digital camera. For details, see the manuals provided with the digital camera.

Index Printing

Use this function to print all images at a reduced size.

- A4 (210 x 297 mm, 8.3 x 11.7 in)

  Horizontal images x vertical images: 8 x 13
- Letter (215.9 x 279.4 mm, 8 $^{1}/_{2}$ x 11 in)

  Horizontal images x vertical images: 8 x 12

Note

- Depending on the digital camera, a form feed may be inserted after one set of images belonging to one type ends.
- The number of images for each size of paper is fixed.

Paper Size

Use this function to print on paper with the size specified on the digital camera.

Paper size name	Actual size
A4	210 x 297 mm (8.3 x 11.7 in)
Letter (8 $^{1}/_{2}$" x 11")	215.9 x 279.4 mm (8 $^{1}/_{2}$ x 11 in)

Reference

- For details about specifying custom sizes, see "Loading Paper", Hardware Guide.

N-up Layout

Use this function to print 2 or 4 images on the specified paper.

Note

- Depending on the digital camera, a form feed may be inserted after one set of images belonging to one type ends.

Image Print Size

Images will be reduced or enlarged automatically according to the size of paper that will be used for printing.

Images will be reduced to up to 25% of original size, or enlarged to up to 400% of original size.

Exiting PictBridge

Use the following procedure to quit the PictBridge mode.

Important

- Do not disconnect the USB cable while data is being sent to the printer. If you do, printing will fail.

1. Check that "Ready" is shown on the screen.
2. Disconnect the USB cable from the printer.

When PictBridge Printing Does Not Work

This section explains likely causes and possible solutions for problems that can occur at PictBridge printing.

Problem	Cause	Solution
PictBridge is not available.	There is a problem with the USB connection or the PictBridge settings.	Use the following procedure to check the connection and settings: 1. Disconnect and then reconnect the USB cable. 2. Check the PictBridge settings are enabled. 3. Disconnect the USB cable, and then turn off the printer. Turn the printer back on. When the printer has fully booted up, reconnect the USB cable.
When two or more digital cameras are connected, the second and subsequent cameras are not recognized.	You have connected multiple digital cameras.	Connect one digital camera only. Do not connect multiple cameras.
Printing is disabled.	The specified number exceeds the maximum number that can be printed at a time.	The maximum specifiable print quantity at a time is 999. Respecify the quantity to 999 or less, and then retry printing.
Printing is disabled.	There is no paper of the specified size remaining.	There is no paper of the specified size remaining. If you have to use paper that is not of the specified size, continue printing using mismatched paper. To cancel printing, perform Job Cancel. For details, see p.19 "If a Paper Mismatch Occurs".

Problem	Cause	Solution
Printing is disabled.	The paper size setting for this tray cannot be printed on the printer.	Select the paper size setting that can be printed on the printer.

5. Making Printer Settings Using the Control Panel

This chapter explains the menu displayed on the control panel and how to change the printer's settings.

Menu Chart

This section explains how to change the default settings of the printer and provides information about the parameters included in each menu.

Paper Input

Paper Size
Paper Type
Tray Priority
Bypass Priority

List/Test Print

Config. Page
Menu List
Test Page
PCL Font List
PS Font List
Maintenance Pg.

Maintenance

Color Dens/Reg
TonerAlmstEmpty
Anti-Humid Lvl

System

Auto Continue
Copies

Sub Paper Size
Duplex
Blank Pg. Print
Energy Saver 1
Energy Saver 2
B&W Page Detect
Restore Default
Prt. Err.Report
BW Prt Priority

Host Interface

Timeout:LockPrt
Timeout: USB
Timeout: NW
Network Setting
Fixed USB Port

PCL Menu

Orientation
Form Lines
Font Number
Point Size
Font Pitch
Symbol Set
Courier Font
Ext.A4 Width
Append CR to LF

Resolution

PS Menu

Resolution
Color Profile

Language

English
French
German
Italian
Spanish
Dutch
Swedish
Norwegian
Danish
Finnish
Portuguese

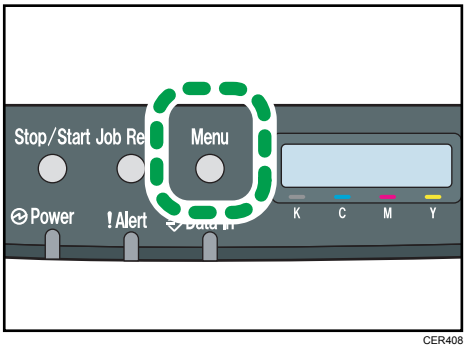
Paper Input Menu

This section explains about paper settings on the Paper Input menu such as paper sizes and types on each tray.

Changing the Paper Input Menu

Use the following procedure to change the tray priority.

1. **Press the [Menu] key.**



   The menu screen appears.

2. **Press the [▲][▼] keys to select [Paper Input], and then press the [OK] key.**
3. **Press the [▲][▼] keys to select [Tray Priority], and then press the [OK] key.**
4. **Press the [▲][▼] keys to select the tray you want to use.**
5. **Press the [OK] key.**

   The selected item is displayed for two seconds with an asterisk, and then the [Tray Priority] screen appears.

6. **Press the [Menu] key to return to the initial screen.**

Paper Input Menu Parameters

This section explains about parameters that can be set on the Paper Input menu.

Paper Size: Tray 1

Specifies the paper size for tray 1.

Default: Region A [A4], Region B [8 1/2 x 11]

- A4, B5 JIS, A5, 8 1/2 x 14, 8 1/2 x 11, 7 1/4 x 10 1/2, 8 x 13, 8 1/2 x 13, 8 1/4 x 13, 16K, Custom Size, 4 1/8 x 9 1/2, 3 7/8 x 7 1/2, C5 Env, C6 Env, DL Env, 5 1/2 x 8 1/2, B6 JIS, A6

Paper Size: Tray 2

Specifies the paper size for tray 2.

This setting appears only when the optional paper feed unit is installed.

Default: Region A [A4], Region B [8 1/2 x 11]

- A4, 8 1/2 x 11

Paper Size: Bypass Tray

Specifies the paper size for the bypass tray.

Default: Region A [A4], Region B [8 1/2 x 11]

- A4, B5 JIS, A5, 8 1/2 x 14, 8 1/2 x 11, 7 1/4 x 10 1/2, 8 x 13, 8 1/2 x 13, 8 1/4 x 13, 16K, Custom Size, 4 1/8 x 9 1/2, 3 7/8 x 7 1/2, C5 Env, C6 Env, DL Env, 5 1/2 x 8 1/2, B6 JIS, A6

Paper Type: Tray 1

Specifies the paper type for tray 1.

Default: [Middle Thick]

- Middle Thick, Thick Paper 1, Recycled Paper, Color Paper, Preprinted, Prepunched, Letterhead, Thick Paper 2, Bond Paper, Cardstock, Label Paper, Envelope, Thin Paper, Plain Paper

Paper Type: Tray 2

Specifies the paper type for tray 2.

This setting appears only when the optional paper feed unit is installed.

Default: [Middle Thick]

- Middle Thick, Thick Paper 1, Recycled Paper, Color Paper, Preprinted, Prepunched, Letterhead, Thin Paper, Plain Paper

Paper Type: Bypass Tray

Specifies the paper type for the bypass tray.

Default: [Middle Thick]

- Middle Thick, Thick Paper 1, Recycled Paper, Color Paper, Prepunched, Letterhead, Thick Paper 2, Bond Paper, Cardstock, Label Paper, Envelope, Thin Paper, Plain Paper

Tray Priority

Selects the tray that the printer uses first for printer jobs from tray 1 or tray 2.

If automatic tray selection is specified for the print job and both tray 1 and tray 2 contain paper that matches the print job, the printer starts to print from the specified tray. If that tray runs out of paper, the printer automatically switches to the other tray to continue printing.

[Tray 2] appears only when the optional paper feed unit is installed.

Default: [**Tray 1**]

- Tray 1
- Tray 2

Bypass Priority

Specifies how print jobs using the bypass tray are handled.

Default: [**Machine Setting**]

- Machine Setting

  The printer prints all print jobs according to the printer's settings.

  An error will occur if the paper size/type settings of the printer and printer driver do not match.

- Any Size/Type

  The printer prints all print jobs according to the printer driver's settings.

  Printing proceeds even if the paper size/type settings of the printer and printer driver do not match. However, if the paper is too small for the print job, the printed image will be cropped.

- Any Custom S/T

  The printer prints custom size print jobs according to the printer driver's settings and prints standard size print jobs according to the printer's settings.

  For custom size print jobs, printing proceeds even if the paper size/type settings of the printer and printer driver do not match. However, if the paper is too small for the print job, the printed image will be cropped.

  For standard size print jobs, an error will occur if the paper size/type settings of the printer and printer driver do not match.

Note

- JIS stands for "Japanese Industrial Standard".

Reference

- For details about the type of paper loaded in each tray, see Hardware Guide.

List/Test Print Menu

You can print lists of configurations on printer or the paper printings.

Also, you can check the types and characters of all the printable fonts.

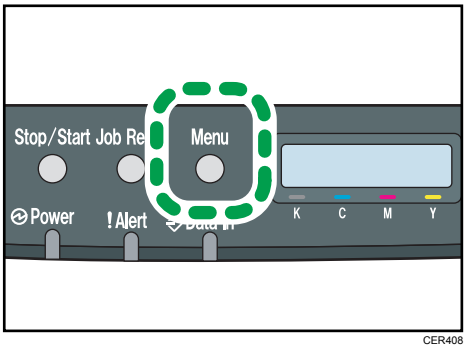
Printing the Configuration Page

Use the following procedure to print the configuration page.

Important

- **The configuration page is printed on A4 or Letter ($8\frac{1}{2}$" x 11") size paper from the priority tray. Load this size of paper into the priority tray before printing the configuration page.**

1. **Press the [Menu] key.**



   The menu screen appears.

2. **Press the [▲][▼] keys to select [List/Test Print], and then press the [OK] key.**
3. **Press the [▲][▼] keys to select [Config. Page], and then press the [OK] key.**

   The configuration page is printed. The [List/Test Print] screen appears on completion of printing.

4. **Press the [Menu] key to return to the initial screen.**

Note

- If you start configuration page printing when appropriate paper is not loaded, an error message appears. If this happens, load appropriate paper in a tray, and then perform a form feed, or cancel the job.

Reference

- For details about the items displayed on the configuration page, see p.110 "Reading the Configuration Page".

List/Test Print Menu Parameters

This section explains about parameter that can be set on the List/Test Print menu.

Config. Page

Prints the current configurations and general information of the printer.

Menu List

Prints the menu list showing all available menus.

Test Page

Prints a test page for checking the printing condition.

PCL Font List

Prints the current configuration and installed PCL font list.

PS Font List

Prints the current configuration and installed PostScript font list.

Maintenance Pg.

Prints the maintenance page.

Note

- Due to print layout limitations, the menu order of the menu list might not match to that of the display panel.

Maintenance Menu

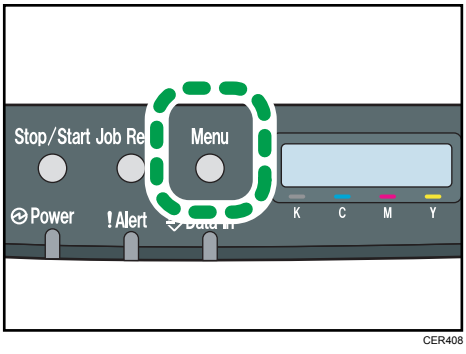
You can adjust the color registration or specify the toner near-end notification timing.

Adjusting the Color Registration

After moving the printer, printing on thick paper, or printing repeatedly for some time, color degradation may occur. By performing color registration adjustment, you can restore optimum print quality.

If documents show color degradation after the printer is moved, perform automatic color adjustment.

1. **Press the [Menu] key.**



   The menu screen appears.

2. **Press the [▲][▼] keys to select [Maintenance], and then press the [OK] key.**
3. **Press the [▲][▼] keys to select [Color Dens/Reg], and then press the [OK] key.**
4. **On the confirmation screen, press the [OK] key.**

   Automatic color adjustment begins.

   A confirmation message appears when the adjustment is complete.

5. **Press the [Menu] key to return to the initial screen.**

Maintenance Menu Parameters

This section explains about parameters that can be set on the Maintenance menu.

Color Dens/Reg

Adjusts color density and registration automatically.

TonerAlmstEmpty

Specifies the low toner level notification timing.

Default: [**Normal**]

- Normal

  A low toner level notification will be made when the number of pages that can be printed with the remaining toner is approximately 200.

- Notify Later

  A low toner level notification will be made when the number of pages that can be printed with the remaining toner is approximately 100.

- Notify Sooner

  A low toner level notification will be made when the number of pages that can be printed with the remaining toner is approximately 300.

Anti-Humid Lvl

You can set the printer to produce prints in consistent quality even when humidity is high.

Default: [**Off**]

- Off
- Level 1

  Select this mode if printouts are blurred.

- Level 2

  Select this mode if printouts are curled and/or blurred. Note that if you select this mode, the first print takes longer than subsequent prints to complete.

- Level 3

  Select this mode if printouts are still curled and/or blurred even when prints are made in [Level 2]. Note that this mode requires more time to produce the first print than [Level 2].

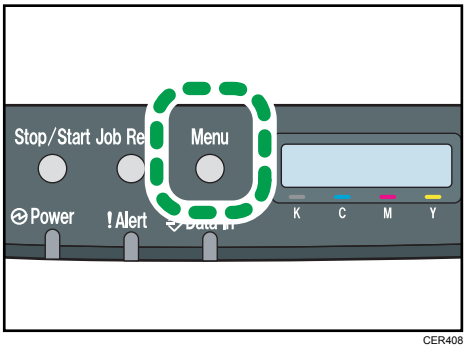
System Menu

You can set basic functions required to use the printer. The printer can be used on factory default, but the configuration can be changed depending on the condition of the user. The changed condition holds even if the printer is turned off.

Changing the System Menu

Use the following procedure to change the settings for Energy Saver timer.

1. **Press the [Menu] key.**



   The menu screen appears.

2. **Press the [▲][▼] keys to select [System], and then press the [OK] key.**
3. **Press the [▲][▼] keys to select [Energy Saver 2], and then press the [OK] key twice.**
4. **Press the [▲][▼] keys to select [On], and then press the [OK] key.**
5. **Press the [▲][▼] keys to select [E.Saver2 Timer], and then press the [OK] key.**
6. **Specify the lead time needed to switch to the Energy Saver mode using [▲][▼] keys.**
7. **Press the [OK] key.**

   The selected lead time is displayed for two seconds with an asterisk, and then the [Energy Saver 2] screen appears.

8. **Press the [Menu] key to return to the initial screen.**

System Menu Parameters

This section explains about parameters that can be set on the System menu.

Auto Continue

Sets the printer to ignore an error with paper size or type and continue printing. The printing stops temporarily when an error is detected, and restarts automatically after about ten seconds using the settings made on the control panel.

However, even if you set to [On] and certain errors occur, the current job may be canceled, and the printer automatically performs the next queued job.

Default: [**Off**]

- Off
- On

Copies

Specifies the number of pages to print.

This setting is disabled if the number of pages to print is specified by command or the printer driver.

Default: "**1**"

- 1 - 999

Sub Paper Size

Sets the printer to print onto paper of another size if the specified paper is not loaded in any tray. Alternative sizes are preset to A4 and Letter.

Default: [**Off**]

- Off
- Auto

Duplex

Sets the printer to print on both sides of paper according to the specified binding method.

Default: [**Off**]

- Off
- Short Edge Bind
- Long Edge Bind

Blank Pg. Print

Sets the printer to print blank pages.

When cover sheet printing is enabled from the printer driver, cover sheets are inserted even if you select [Off].

Default: [**On**]

- On
- Off

Energy Saver 1

Sets the printer to enter Energy Saver mode 1 if the printer has been idle for about 30 seconds. It takes less time to recover from Energy Saver mode 1 than from power-off state or Energy Saver mode 2, but power consumption is higher in Energy Saver mode 1 than in Energy Saver mode 2.

Default: [**Off**]

- Off
- On (30 seconds)

Energy Saver 2

Sets the printer to enter Energy Saver mode 2 after the period of time specified for this setting is passed. The printer consumes less power in Energy Saver mode 2 than in Energy Saver mode 1, but it takes longer to recover from Energy Saver mode 2 than from Energy Saver mode 1.

Default: [**On**] (10.1 minutes)

- On (1 to 240 minutes, in 1 minute increments)
- Off

B&W Page Detect

Sets the printer to print all monochrome pages in monochrome mode even if color printing is specified.

Default: [**On**]

- On
- Off

Restore Default

Resets the printer settings to their factory-set defaults.

Prt. Err.Report

Sets the printer to print an error page when the printer detects a printer or memory error.

Default: [**Off**]

- On
- Off

BW Prt Priority

Sets the printer to suppress the consumption of color toner when printing black-and-white pages.

Also, the amount of color toner consumed during warm-up time for maintenance will also be lowered.

Default: [**Off**]

- Off
- On

Host Interface Menu

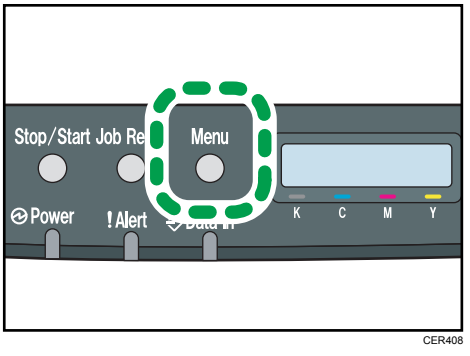
You can set configurations about network connections and communication.

The changed configuration holds even if the printer is turned off.

Changing the Host Interface Menu

Use the following procedure to change the network settings.

1. **Press the [Menu] key.**



   The menu screen appears.

2. **Press the [▲][▼] keys to select [Host Interface], and then press the [OK] key.**
3. **Press the [▲][▼] keys to select [Network Setting], and then press the [OK] key.**
4. **Press the [▲][▼] keys to select [IPv4 Config.], and then press the [OK] key.**
5. **Press the [▲][▼] keys to select [DHCP], and then press the [OK] key.**
6. **Press the [▲][▼] keys to select [Active] or [Inactive] according to the network environment, and then press the [OK] key.**

   If you select [Active], proceed to step 10.

7. **Press the [▲][▼] keys to select [IP Address], and then press the [OK] key.**
8. **Specify the printer's IPv4 address using [▲][▼] keys, and then press the [OK] key.**
   - To go to the next field, press the [OK] key.
   - To go back to the previous field, press the [Escape] key.
9. **Set the subnet mask and gateway address.**

   Set values for each setting following the same procedure as for the IPv4 address.

10. **Press the [Menu] key to return to the initial screen.**

Host Interface Menu Parameters

This section explains parameters that can be set on the Host Interface menu.

Timeout:LockPrt

Specifies how many seconds the printer holds a new Locked Print file, when the printer cannot store any more Locked Print files. Within this time, you can print or delete the new Locked Print file. You can also print or delete an existing Locked Print file so that the new Locked Print file can be stored in the printer.

Default: "**60**" seconds

- 0 to 300 seconds, in increments of 1 second

Timeout: USB

Specifies how many seconds the printer should wait before ending a print job that is receiving via USB. If printing is frequently interrupted by data from other ports, increase the timeout period.

Default: [**60 sec.**]

- 60 sec.
- 300 sec.
- 15 sec.

Timeout: NW

Specifies how many seconds the printer should wait before ending a print job that is receiving via Ethernet. If printing operation is frequently interrupted by data from other ports, you can increase the timeout period.

Default: [**60 sec.**]

- 60 sec.
- 300 sec.
- 15 sec.

Network Setting

Specifies the network-related settings.

- Ethernet Speed

  Select the network speed to operate the printer.

  Default: [**Auto Select**]

  - Auto Select
  - 10Mbps Half D.
  - 10Mbps Full D.
  - 100Mbps Half D.
  - 100Mbps Full D.

- IPsec

  Selects whether to enable or disable IPsec.

  Default: [**Off**]

  - Off
  - On
- MAC Address

  Check the MAC address.
- IPv4 Config.
  - DHCP

    Selects whether to set the IPv4 address, subnet mask, and default gateway address automatically or manually.

    Default: [**Active**]

    - Active
    - Inactive
  - IP Address

    Specifies the IPv4 address.

    When [DHCP] is set to [Active], the IP address cannot be changed.

    To change it, set [DHCP] to [Inactive].

    Default: **XXX.XXX.XXX.XXX**

    The numbers represented by "X" vary according to your network environment.
  - Subnet Mask

    Specifies the subnet mask.

    When [DHCP] is set to [Active], the subnet mask cannot be changed.

    To change it, set [DHCP] to [Inactive].

    Default: **XXX.XXX.XXX.XXX**

    The numbers represented by "X" vary according to your network environment.
  - Gateway Address

    Specifies the gateway address.

    When [DHCP] is set to [Active], the gateway address cannot be changed.

    To change it, set [DHCP] to [Inactive].

    Default: **XXX.XXX.XXX.XXX**

    The numbers represented by "X" vary according to your network environment.
  - IP Addr. Method

Displays the IP address acquisition method.

- DHCP
- Auto IP
- Manual Config.
- Default IP

- IPv6 Config.
  - IPv6

    Selects whether to enable or disable IPv6.

    Default: [**On**]

    - On
    - Off
  - IP Ad. (DHCP)

    Displays the IPv6 address obtained from a DHCP server.
  - Manual Address
    - Manual Address

      Specifies the printer's IPv6 address when DHCP is not used. Can contain up to 39 characters.
    - Prefix Length

      Specifies the prefix length, using a value between 0 and 128.
    - Gateway Address

      Specifies the IPv6 address of the default gateway. Can contain up to 39 characters.
  - Stateless Ad.

    Displays the IPv6 stateless addresses obtained from a Router Advertisement.

    - Address 1
    - Address 2
    - Address 3
    - Address 4
  - Link-local Ad.

    Displays the IPv6 link local address.
  - DHCP

    Sets the printer to receive its IPv6 address from a DHCP server.

    When DHCP is used, you cannot specify the IPv6 address manually.

    Default: [**Off**]

- Off
- On

Fixed USB Port

Specifies whether the same printer driver can be used for multiple printers or not under USB connection.

Default: [**Off**]

- On

  The same printer driver you have installed in your computer can be used with any printer other than the one originally used for installation, if the printer is of the same model.

- Off

  You must install the printer driver separately for individual printers, because the printer other than the original will be recognized as a new device upon USB connection.

Note

- Contact your network administrator for information about the network configuration.

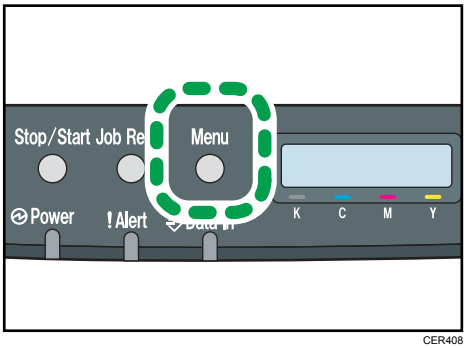
PCL Menu

You can set conditions when using PCL for printing.

Changing the PCL Menu

Use the following procedure to change the settings for orientation.

1. **Press the [Menu] key.**



   The menu screen appears.

2. **Press the [▲][▼] keys to select [PCL Menu], and then press the [OK] key.**
3. **Press the [▲][▼] keys to select [Orientation], and then press the [OK] key.**
4. **Press the [▲][▼] keys to select the orientation, and then press the [OK] key.**

   The selected orientation is displayed for two seconds with an asterisk, and then the [PCL Menu] screen appears.

5. **Press the [Menu] key to return to the initial screen.**

PCL Menu Parameters

This section explains about parameters that can be set on the PCL Menu.

Orientation

Selects the page orientation.

Default: [**Portrait**]

- Portrait
- Landscape

Form Lines

Specifies the number of lines per page between 5 and 128.

Default: Region A 64, Region B 60

Font Number

Specifies the ID of the default font you want to use between 0 and 89.

Default: "0"

Point Size

Specifies the point size you want to use for the default font between 4.00 and 999.75 in 0.25 increments.

Default: [12.00 points]

Font Pitch

Specifies the number of characters per inch you want to use for the default font between 0.44 and 99.99 in 0.01 increments.

This setting is effective only for fixed-space fonts.

Default: [10.00 pitch]

Symbol Set

Specifies the character set for the default font. Available sets are as follows: PC-8, PC-8 D/N, PC-850, PC-852, PC-858, PC8-TK, Win L1, Win L2, Win L5, Desktop, PS Text, VN Intl, VN US, MS Publ, PS Math, VN Math, Pifont, Legal, ISO 4, ISO 6, ISO 11, ISO 15, ISO 17, ISO 21, ISO 60, ISO 69, Win 3.0, MC Text, ISO L6, ISO L9, PC-775, PC-1004, Win Balt, Math-8, Roman-8, Roman-9, ISO L1, ISO L2, ISO L5

Default: [PC-8]

Courier Font

Selects a courier-type font.

Default: [Regular]

- Regular
- Dark

Ext.A4 Width

Sets the printer to extend the width of the printable area of A4 size paper, reducing side margin width.

Default: [Off]

- Off
- On

Append CR to LF

Sets the printer to append a CR code to each LF code to print text data clearly.

Default: [Off]

- Off

- On

Resolution

Specifies the print resolution in dots per inch.

Default: [**600 x 600 1Bit**]

- 600 x 600 1Bit
- 600 x 600 2Bit
- 600 x 600 4Bit

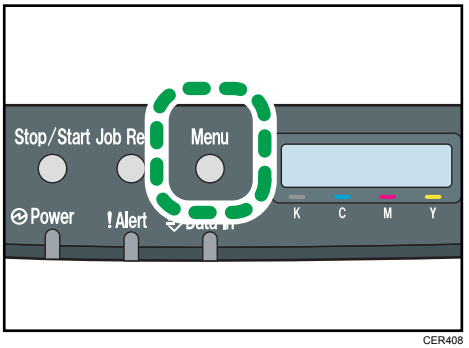
PS Menu

You can set conditions when using PostScript for printing.

Changing the PS Menu

Use the following procedure to change the settings for resolution.

1. **Press the [Menu] key.**



   The menu screen appears.

2. **Press the [▲][▼] keys to select [PS Menu], and then press the [OK] key.**
3. **Press the [▲][▼] keys to select [Resolution], and then press the [OK] key.**
4. **Press the [▲][▼] keys to select the resolution, and then press the [OK] key.**

   The selected resolution is displayed for two seconds with an asterisk, and then the [PS Menu] screen appears.

5. **Press the [Menu] key to return to the initial screen.**

PS Menu Parameters

This section explains about parameters that can be set on the PS Menu.

Resolution

Specifies the print resolution in dots per inch.

Default: [**600 x 600 1Bit**]

- 600 x 600 1Bit
- 600 x 600 2Bit
- 600 x 600 4Bit

Color Profile

Specifies the color profile.

Default: [**Solid Color**]

- Solid Color
- Photographic
- Off
- Presentation

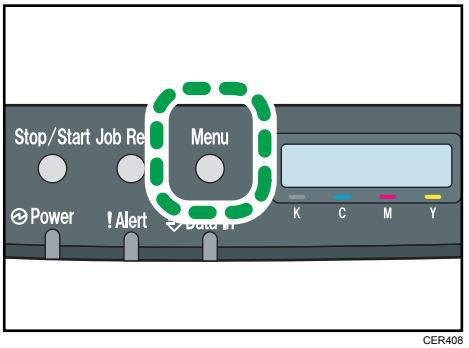
Language Menu

You can set language displayed on the menu.

Changing the Language Menu

Use the following procedure to change the language.

1. **Press the [Menu] key.**



   The menu screen appears.

2. **Press the [▲][▼] keys to select [Language], and then press the [OK] key.**
3. **Press the [▲][▼] keys to select the language, and then press the [OK] key.**

   The selected item is displayed for two seconds with an asterisk, and then the [Language] screen appears.
4. **Press the [Menu] key to return to the initial screen.**

Language Menu Parameters

You can select the language you want to use. Available languages are as follows:

English, French, German, Italian, Spanish, Dutch, Swedish, Norwegian, Danish, Finnish, Portuguese.

Default: [**English**]

6. Monitoring and Configuring the Printer

This chapter explains how to use Web Image Monitor to monitor the printer or change its settings.

Using Web Image Monitor

Using Web Image Monitor, you can check the printer status and change settings.

Available operations

The following operations can be remotely performed using Web Image Monitor on a computer:

- Displaying the printer's status or settings
- Configuring the printer's settings
- Configuring the user restriction settings
- Configuring the network settings
- Configuring the IPsec settings
- Printing reports
- Setting the administrator password
- Resetting the printer's configuration to the factory default
- Creating backup files of the printer's configuration
- Restoring the printer's configuration from backup files
- Configuring the printer's Energy Saver mode setting

Configuring the printer

To perform the operations from Web Image Monitor, TCP/IP is required.

After the printer is configured to use TCP/IP, operations from Web Image Monitor become available.

Recommended Web browser

- Internet Explorer 6 or later
- Firefox 3.0 or later
- Safari 3.0 or later

Note

- If the previous versions of the Web browser above are used or JavaScript and cookies are not enabled with the Web browser used, display and operation problems may occur.
- If you are using a proxy server, change the Web browser settings. Contact your network administrator for information about the settings.

- The previous page may not appear even after the back button of the Web browser is clicked. If this happens, click the refresh button of the Web browser.
- Updating the printer information is not automatically performed. Click [Refresh] in the main area to update the printer information.
- We recommend using Web Image Monitor in the same network.
- When using the printer under DHCP, the IP address may be automatically changed by the DHCP server settings.
- If the HTTP port is disabled, connection to the printer using the printer's URL cannot be established.

Displaying Top Page

This section explains how to display Web Image Monitor and its Top Page.

Displaying Top Page of Web Image Monitor

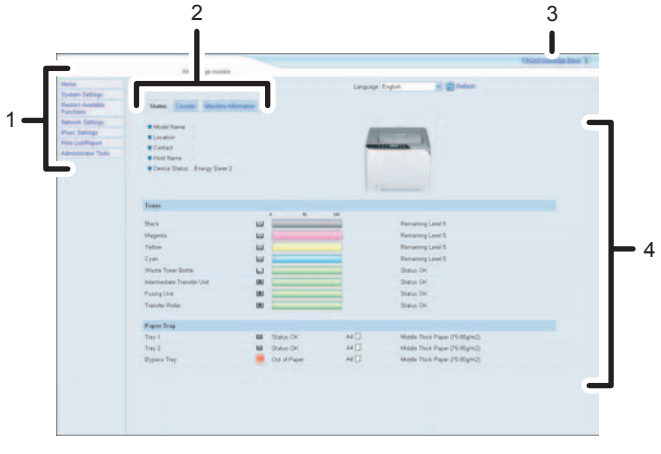
1. **Start your Web browser.**
2. **Enter "http://(printer's address)/" in the address bar of the Web browser.**

Top Page of Web Image Monitor appears.

If the printer's host name has been registered on the DNS server, you can enter it.

Top Page

Every Web Image Monitor page is divided into the following areas:



1. **Menu area**

   If you select menu, its content will be shown on the work area, or the sub area.

2. **Tab area**

   Contains menus for the Status and Counter modes and tabs for switching between them.

3. **FAQs/Knowledge Base**

   Provides answers to commonly asked questions and other useful information about using this printer.

   Click [FAQs/Knowledge Base] to view the Frequently Asked Questions. An internet connection is required to view the Frequently Asked Questions.

4. **Main area**

   Displays the contents of the item selected in the menu area.

   Printer information in the main area is not automatically updated. Click [Refresh] at the upper right in the main area to update the printer information. Click the Web browser's [Refresh] button to refresh the entire browser screen.

Note

- The FAQs/Knowledge Base are not available in certain languages.

Changing the Interface Language

Select the desired interface language from the [Language] list.

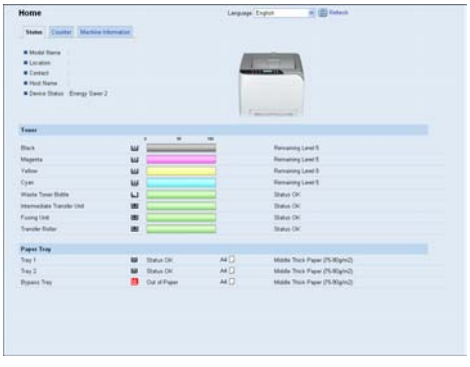
Checking the System Information

Click [Home] to display the main page of Web Image Monitor. You can check the current system information on this page.

This page contains the following tabs: [Status], [Counter], and [Machine Information].

Checking the Status Information

Click the [Status] tab on the main page to display system information, paper tray status and toner levels.



Item	Description
Model Name	Shows the name of the printer.
Location	Shows the location of the printer as registered on the [SNMP] page.
Contact	Shows the contact information of the printer as registered on the [SNMP] page.
Host Name	Shows the host name specified in [Host Name] on the [DNS] page.
Device Status	Shows the current messages on the printer's display.

Toner

Item	Description
Black	Shows the amount of black toner remaining.
Magenta	Shows the amount of magenta toner remaining.
Yellow	Shows the amount of yellow toner remaining.
Cyan	Shows the amount of cyan toner remaining.

Item	Description
Waste Toner Bottle	Shows the remaining life of the waste toner bottle, as "Status OK", "Almost Full" or "Full".
Intermediate Transfer Unit	Shows the remaining life of the transfer unit, as "Status OK", "Replacement Required Soon" or "Replacement Required". For replacing, contact your sales or service representative.
Fusing Unit	Shows the remaining life of the fusing unit, as "Status OK", "Replacement Required Soon" or "Replacement Required". For replacing, contact your sales or service representative.
Transfer Roller	Shows the remaining life of the transfer belt, as "Status OK", "Replacement Required Soon" or "Replacement Required". For replacing, contact your sales or service representative.

Paper Tray

Item	Description
Tray 1	Shows the current state and paper size/type setting of tray 1.
Tray 2	Shows the current state and paper size/type setting of tray 2.
Bypass Tray	Shows the current state and paper size/type setting of the bypass tray.

Note

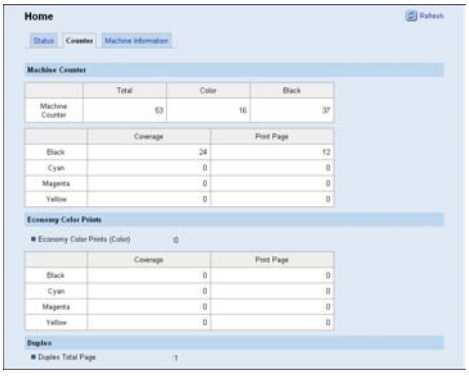
- The information about tray 2 appears only when the optional paper feed unit is installed.
- If non-genuine print cartridges are installed, toner life cannot be reliably indicated.

Reference

- For details about the printer's location and contact information, see p.91 "Configuring the SNMP Settings".
- For details about the printer's host name, see p.89 "Configuring the DNS Settings".

Checking the Counter Information

Click the [Counter] tab on the main page to check the counter information.



Machine Counter

Item	Description
Machine Counter	Shows the following for pages printed, including lists/reports: • Total number of pages • Number of color pages • Number of black-and-white pages
Black	Shows the following for pages printed, including lists/reports: • Accumulated value of black toner A4 page coverage (in percent) • Accumulated value of black toner consumption (converted into fully-covered A4 pages)
Cyan	Shows the following for pages printed, including lists/reports: • Accumulated value of cyan toner A4 page coverage (in percent) • Accumulated value of cyan toner consumption (converted into fully-covered A4 pages)
Magenta	Shows the following for pages printed, including lists/reports: • Accumulated value of magenta toner A4 page coverage (in percent) • Accumulated value of magenta toner consumption (converted into fully-covered A4 pages)
Yellow	Shows the following for pages printed, including lists/reports: • Accumulated value of yellow toner A4 page coverage (in percent) • Accumulated value of yellow toner consumption (converted into fully-covered A4 pages)

Economy Color Prints

Item	Description
Economy Color Prints (Color)	Shows the pages printed in Economy Color Printing mode.
Black	Shows the following for pages printed in Economy Color Printing mode: • Accumulated value of black toner A4 page coverage (in percent) • Accumulated value of black toner consumption (converted into fully-covered A4 pages)
Cyan	Shows the following for pages printed in Economy Color Printing mode: • Accumulated value of cyan toner A4 page coverage (in percent) • Accumulated value of cyan toner consumption (converted into fully-covered A4 pages)
Magenta	Shows the following for pages printed in Economy Color Printing mode: • Accumulated value of magenta toner A4 page coverage (in percent) • Accumulated value of magenta toner consumption (converted into fully-covered A4 pages)
Yellow	Shows the following for pages printed in Economy Color Printing mode: • Accumulated value of yellow toner A4 page coverage (in percent) • Accumulated value of yellow toner consumption (converted into fully-covered A4 pages)

Duplex

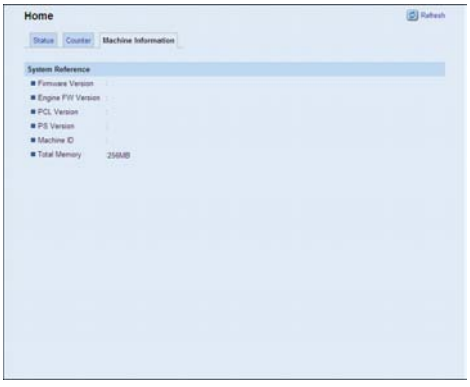
Item	Description
Duplex Total Page	Shows the total number of pages printed on both sides.

Note

- A sheet printed on both sides counts as two printed pages.

Checking the Machine Information

Click the [Machine Information] tab on the main page to display printer information.



Machine Information

Item	Description
Firmware Version	Shows the version of firmware installed on the printer.
Engine FW Version	Shows the version of firmware for the printer engine.
PCL Version	Shows the version of the PCL interpreter.
PS Version	Shows the version of the PS interpreter.
Machine ID	Shows the serial number of the printer.
Total Memory	Shows the total memory installed on the printer.

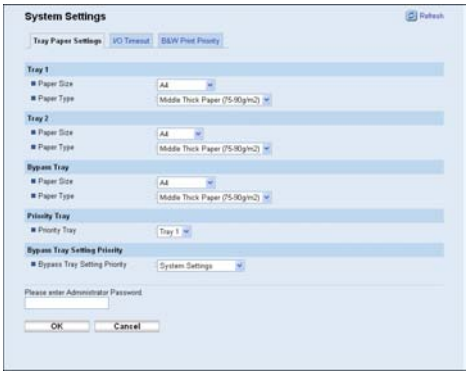
Configuring the System Settings

Click [System Settings] to display the page for configuring the system settings.

This page contains the following tabs: [Tray Paper Settings], [I/O Timeout], and [B&W Print Priority].

Configuring the Paper Settings

Click the [Tray Paper Settings] tab on the system settings page to configure the paper settings.



Tray 1

Item	Description
Paper Size	Select the paper size for tray 1 from the following: [A4], [B5 JIS], [A5], [B6 JIS], [A6], [8 1/2 x 14], [8 1/2 x 11], [5 1/2 x 8 1/2], [7 1/4 x 10 1/2], [8 x 13], [8 1/2 x 13], [8 1/4 x 13], [16K], [4 1/8 x 9 1/2], [3 7/8 x 7 1/2], [C5 Env], [C6 Env], [DL Env], [Custom Size]
Paper Type	Select the paper type for tray 1 from the following: [Thin Paper (60-65g/m2)], [Plain Paper (66-74g/m2)], [Middle Thick Paper (75-90g/m2)], [Thick Paper 1 (91-105g/m2)], [Recycled Paper], [Color Paper], [Letterhead], [Preprinted Paper], [Prepunched Paper], [Label Paper], [Bond Paper], [Cardstock], [Envelope], [Thick Paper 2 (106-160g/m2)]

Tray 2

Item	Description
Paper Size	Select the paper size for tray 2 from the following: [A4], [8 1/2 x 11]

Item	Description
Paper Type	Select the paper type for tray 2 from the following: [Thin Paper (60-65g/m2)], [Plain Paper (66-74g/m2)], [Middle Thick Paper (75-90g/m2)], [Thick Paper 1 (91-105g/m2)], [Recycled Paper], [Color Paper], [Letterhead], [Preprinted Paper], [Prepunched Paper]

Bypass Tray

Item	Description
Paper Size	Select the paper size for the bypass tray from the following: [A4], [B5 JIS], [A5], [B6 JIS], [A6], [8 1/2 x 14], [8 1/2 x 11], [5 1/2 x 8 1/2], [7 1/4 x 10 1/2], [8 x 13], [8 1/2 x 13], [8 1/4 x 13], [16K], [4 1/8 x 9 1/2], [3 7/8 x 7 1/2], [C5 Env], [C6 Env], [DL Env], [Custom Size]
Paper Type	Select the paper type for the bypass tray from the following: [Thin Paper (60-65g/m2)], [Plain Paper (66-74g/m2)], [Middle Thick Paper (75-90g/m2)], [Thick Paper 1 (91-105g/m2)], [Recycled Paper], [Color Paper], [Letterhead], [Prepunched Paper], [Label Paper], [Bond Paper], [Cardstock], [Envelope], [Thick Paper 2 (106-160g/m2)]

Priority Tray

Item	Description
Priority Tray	Select the tray that the printer uses first for printer jobs from tray 1 or tray 2. If automatic tray selection is specified for the print job and both tray 1 and tray 2 contain paper that matches the print job, the printer starts to print from the specified tray. If that tray runs out of paper, the printer automatically switches to the other tray to continue printing.

Bypass Tray Setting Priority

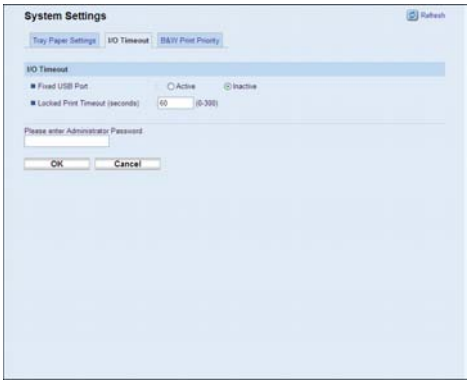
Item	Description
Bypass Tray Setting Priority	Select how print jobs using the bypass tray are handled. • [System Settings] The printer prints all print jobs according to the printer's settings. An error will occur if the paper size/type settings of the printer and printer driver do not match. • [Any Size/Type] The printer prints all print jobs according to the printer driver's settings. Printing proceeds even if the paper size/type settings of the printer and printer driver do not match, but If the paper is too small for the print job, the printed image will be cropped. • [Any Custom Size/Type] The printer prints custom size print jobs according to the printer driver's settings and prints standard size print jobs according to the printer's settings. For custom size print jobs, printing proceeds even if the paper size/type settings of the printer and printer driver do not match, but if the paper is too small for the print job, the printed image will be cropped. For standard size print jobs, an error will occur if the paper size/type settings of the printer and printer driver do not match.

Note

- The information about tray 2 appears only when the optional paper feed unit is installed.

Configuring I/O Timeout Settings

Click the [I/O Timeout] tab on the system settings page to configure the I/O timeout settings.

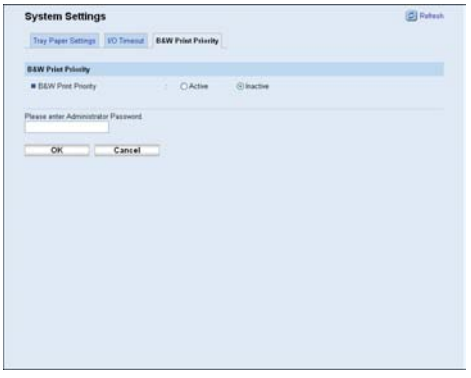


I/O Timeout

Item	Description
Fixed USB Port	Specifies whether the same printer driver can be used for multiple printers or not under USB connection. If this setting is enabled, the same printer driver you have installed in your computer can be used with any printer other than the one originally used for installation, if the printer is of the same model. If disabled, you must install the printer driver separately for individual printers, because the printer other than the original will be recognized as a new device upon USB connection.
Locked Print Timeout (seconds)	Specifies how many seconds the printer holds a new Locked Print file, when the printer cannot store any more Locked Print files (0 to 300 seconds). Within this time, you can print or delete the new Locked Print file. You can also print or delete an existing Locked Print file so that the new Locked Print file can be stored in the printer.

Configuring the Black-and-White Print Priority Settings

Click the [B&W Print Priority] tab on the system settings page to configure the B&W print priority settings.



B&W Print Priority

Item	Description
B&W Print Priority	Enable this setting to suppress the consumption of color toner when printing black-and-white pages. Also, amount of color toner consumed during warm-up time for maintenance will also be lowered.

Restricting Printer Functions According to User

You can set the printer to require a user code when someone tries to use certain printer functions.

Important

- **When print jobs are restricted, you can only authenticate through the PCL printer driver. Printing from the PostScript 3 printer driver will not be possible.**

Using Web Image Monitor, enable user restriction for all or some of the functions listed below, and then register users who can use those functions.

- PictBridge printing
- Printing (both color and black-and-white)
- Color printing (black-and-white printing is still allowed)

For each user, you can specify which functions are available upon authentication. A maximum of 30 users can be registered.

Reference

- For details about configuring the user restriction settings, see p.29 "Restricting Printer Functions According to User".

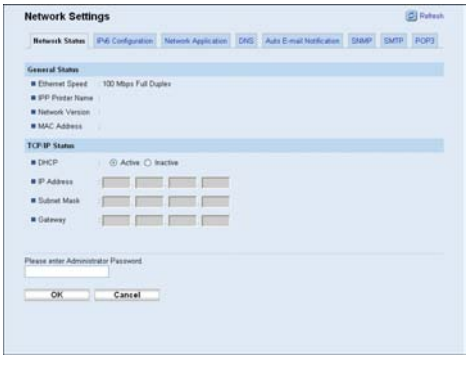
Configuring the Network Settings

Click [Network Settings] to display the page for configuring the network settings.

This page contains the following tabs: [Network Status], [IPv6 Configuration], [Network Application], [DNS], [Auto E-mail Notification], [SNMP], [SMTP], and [POP3].

Checking the Network Status

Click the [Network Status] tab on the network settings page to display network information.



General Status

Item	Description
Ethernet Speed	Shows the type and speed of the network connection.
IPP Printer Name	Shows the name used to identify the printer on the network.
Network Version	Shows the version of the printer's network module (a part of the printer firmware).
MAC Address	Shows the MAC address of the printer.

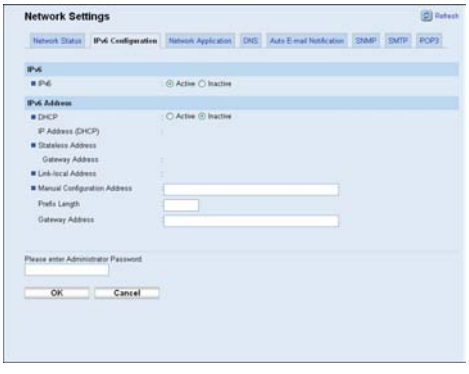
TCP/IP Status

Item	Description
DHCP	Select whether the printer should receive a dynamic IPv4 address automatically using DHCP. To use DHCP, select [Active]. When enabled, the items below cannot be configured.
IP Address	Enter the IPv4 address for the printer.
Subnet Mask	Enter the subnet mask of the network.

Item	Description
Gateway	Enter the IPv4 address of the network gateway.

Configuring the IPv6 Settings

Click the [IPv6 Configuration] tab on the network settings page to configure the IPv6 settings.



IPv6

Item	Description
IPv6	Select whether to enable or disable IPv6. You cannot disable IPv6 using Web Image Monitor if the printer is currently in use in an IPv6 environment. In this case, use the control panel to disable [IPv6] under [Network Setting]. When disabled, [DHCP], [Manual Configuration Address], [Prefix Length], and [Gateway Address] below cannot be configured.

IPv6 Address

Item	Description
DHCP	Select whether or not the printer obtains its IPv6 address from a DHCP server. To specify the printer's IPv6 address manually, select [Inactive] and enter the printer's IPv6 address in [Manual Configuration Address].
IP Address (DHCP)	Displays the IPv6 address obtained from the DHCP server when [DHCP] is set to [Active].
Stateless Address	Displays up to four stateless auto addresses.
Gateway Address	Displays the printer's default gateway address.

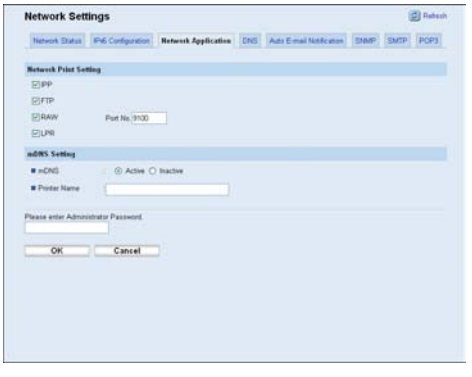
Item	Description
Link-local Address	Displays the link local address of the printer. The link local address is an address that is valid only inside the local network (local segment).
Manual Configuration Address	Enter the printer's IPv6 address. Can contain up to 39 characters.
Prefix Length	Enter the prefix length using a value between 0 and 128.
Gateway Address	Enter the default gateway's IPv6 address. Can contain up to 39 characters.

Reference

- For details about [IPv6], see p.61 "Host Interface Menu Parameters".

Configuring the Network Application Settings

Click the [Network Application] tab on the network settings page to configure the network application settings.



Network Print Setting

Item	Description
IPP	Select to enable network printing using Internet Print Protocol (via TCP port 631/80).
FTP	Select to enable network printing using an embedded FTP server in the printer (via TCP port 20/21).
RAW	Select to enable network raw printing.
Port No.	Enter the TCP port number to use for raw printing. The valid range is 1024 to 65535, except 53550 (default is 9100).

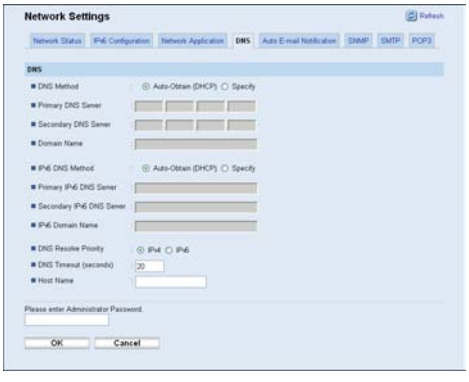
Item	Description
LPR	Select to enable network printing using LPR/LPD (via TCP port 515).

mDNS Setting

Item	Description
mDNS	Select to enable Multicast DNS (via UDP port 5353). If disabled, the item below cannot be configured.
Printer Name	Enter the name of the printer. Can contain up to 32 characters.

Configuring the DNS Settings

Click the [DNS] tab on the network settings page to configure the DNS settings.



DNS

Item	Description
DNS Method	Select whether to specify domain name servers manually or receive DNS information from the network automatically. When set to [Auto-Obtain (DHCP)], [Primary DNS Server], [Secondary DNS Server], and [Domain Name] below become unavailable.
Primary DNS Server	Enter the IPv4 address of the primary DNS.
Secondary DNS Server	Enter the IPv4 address of the secondary DNS.
Domain Name	Enter the IPv4 domain name for the printer. Can contain up to 32 characters.

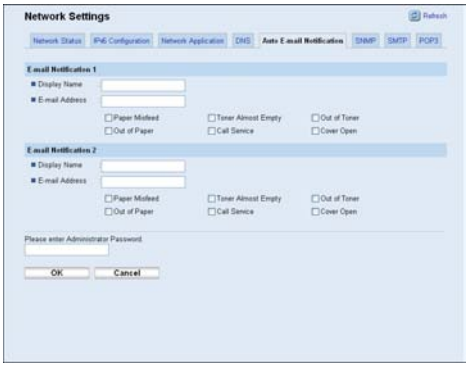
Item	Description
IPv6 DNS Method	Select whether to specify the domain server manually or have the printer obtain its DNS information automatically. When set to [Auto-Obtain (DHCP)], [Primary IPv6 DNS Server], [Secondary IPv6 DNS Server], and [IPv6 Domain Name] below become unavailable.
Primary IPv6 DNS Server	Enter the IPv6 address of the primary IPv6 DNS server. Can contain up to 39 characters.
Secondary IPv6 DNS Server	Enter the IPv6 address of the secondary IPv6 DNS server. Can contain up to 39 characters.
IPv6 Domain Name	Enter the IPv6 domain name of the printer. Can contain up to 32 characters.
DNS Resolve Priority	Select whether to give priority to IPv4 or IPv6 for DNS name resolution.
DNS Timeout (seconds)	Enter the number of seconds the printer waits before considering a DNS request to have timed out (1 to 999 seconds).
Host Name	Enter a host name for the printer. Can contain up to 15 characters.

Note

- For details about each setting, see Web Image Monitor Help.

Configuring the Auto E-mail Notification Settings

Click the [Auto E-mail Notification] tab on the network settings page to configure the auto e-mail notification settings.

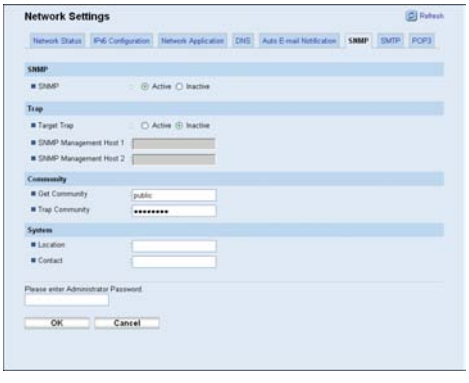


E-mail Notification 1/E-mail Notification 2

Item	Description
Display Name	Enter a sender name for alert e-mail. Can contain up to 32 characters.
E-mail Address	Enter the address of the recipient of the alert email. Can contain up to 64 characters.
Paper Misfeed	Select to send an alert e-mail to the specified address if a paper jam occurs.
Out of Paper	Select to send an alert e-mail to the specified address if paper runs out.
Toner Almost Empty	Select to send an alert e-mail to the specified address if toner becomes low.
Call Service	Select to send an alert e-mail to the specified address if the printer requires servicing.
Out of Toner	Select to send an alert e-mail to the specified address if toner runs out.
Cover Open	Select to send an alert e-mail to the specified address if a cover is open.

Configuring the SNMP Settings

Click the [SNMP] tab on the network settings page to configure the SNMP settings.



SNMP

Item	Description
SNMP	Select whether to enable the printer to use SNMP services.

Trap

Item	Description
Target Trap	Select whether to enable the printer to send traps to the management host (NMS). When set to [Inactive], [SNMP Management Host 1] and [SNMP Management Host 2] below become unavailable.
SNMP Management Host 1	Enter the IP address or host name of a management host. Can contain up to 64 characters.
SNMP Management Host 2	Enter the IP address or host name of a management host. Can contain up to 64 characters.

Community

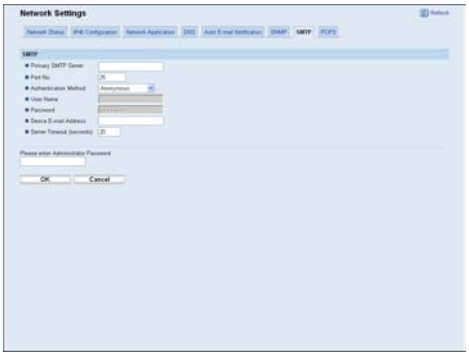
Item	Description
Get Community	Enter the community name to use for authentication of Get requests. Can contain up to 32 characters.
Trap Community	Enter the community name to use for authentication of Trap requests. Can contain up to 32 characters.

System

Item	Description
Location	Enter the location of the printer. The location entered here is displayed on the main page. Can contain up to 64 characters.
Contact	Enter the contact information of the printer. The contact information entered here is displayed on the main page. Can contain up to 64 characters.

Configuring the SMTP Settings

Click the [SMTP] tab on the network settings page to configure the SMTP settings.

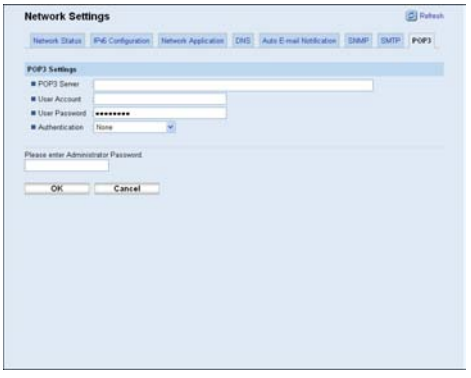


SMTP

Item	Description
Primary SMTP Server	Enter the IP address or host name of the SMTP server. Can contain up to 64 characters.
Port No.	Enter the port number for SMTP (1 to 65535).
Authentication Method	Select an authentication method from the following: • [Anonymous]: The user name and password are not necessary. • [SMTP]: The printer supports NTLM and LOGIN authentication. • [POP before SMTP]: The POP3 server is used for authentication. When sending e-mails to an SMTP server, you can enhance the SMTP server security level by connecting to the POP server for authentication.
User Name	Enter the user name for logging in to the SMTP server. Can contain up to 32 characters.
Password	Enter the password for logging in to the SMTP server. Can contain up to 32 characters.
Device E-mail Address	Enter the system administrator's e-mail address. This address is used as the sender's address of alert e-mail messages sent from this printer. Can contain up to 64 characters.
Server Timeout (seconds)	Enter the number of seconds the printer waits before considering an SMTP operation to have timed out (1 to 999).

Configuring the POP3 Settings

Click the [POP3] tab on the network settings page to configure the POP3 settings.



POP3 Settings

Item	Description
POP3 Server	Enter the IP address or host name of the POP3 server for authentication. The POP3 server specified here will be used for [POP before SMTP]. Can contain up to 64 characters.
User Account	Enter the user name for logging in to the POP3 server. Can contain up to 32 characters.
User Password	Enter the password for logging in to the POP3 server. Can contain up to 32 characters.
Authentication	Select an authentication method from the following: [None]: Password will not be encrypted. [APOP Authentication]: Password will be encrypted. [Auto]: Password will be encrypted or not encrypted according to the POP3 server's settings.

Configuring the IPsec Settings

Click [IPsec Settings] to display the page for configuring the IPsec settings.

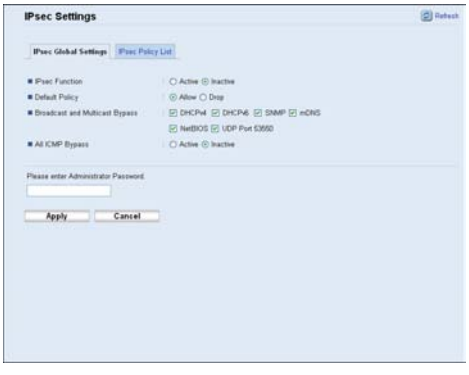
This page contains the following tabs: [IPsec Global Settings] and [IPsec Policy List].

Important

- **This function is available only when an administrator password is specified.**

Configuring the IPsec Global Settings

Click the [IPsec Global Settings] tab on the IPsec settings page to configure the IPsec global settings.



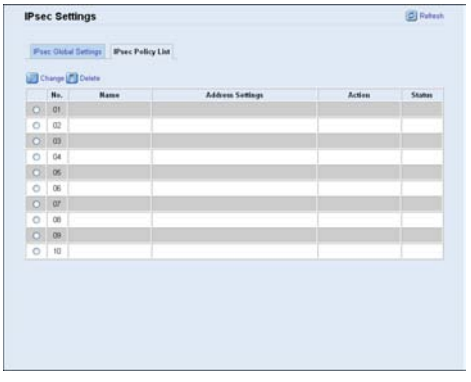
Item	Description
IPsec Function	Select whether to enable or disable IPsec.
Default Policy	Select whether to allow for the default IPsec policy.
Broadcast and Multicast Bypass	Select the services that you do not want to apply IPsec from the following: [DHCPv4], [DHCPv6], [SNMP], [mDNS], [NetBIOS], [UDP Port 53550]
All ICMP Bypass	Select whether to apply IPsec to ICMP packets (IPv4 and IPv6) from the following: • [Active]: All ICMP packets will be bypassed without IPsec protection. "ping" command (echo request and echo reply) is not encapsulated by IPsec. • [Inactive]: Some ICMP message types will be bypassed without IPsec protection.

Note

- For details about which ICMP message types will be bypassed when setting [All ICMP Bypass] to [Inactive], see Web Image Monitor Help.

Configuring the IPsec Policy

Click the [IPsec Policy List] tab on the IPsec settings page to display the list of the registered IPsec policies.



Item	Description
No.	IPsec policy number.
Name	Displays the name of the IPsec policy.
Address Settings	Displays the IP address filter of the IPsec policy as below: Remote address/Prefix length
Action	Displays the action of the IPsec policy as "Allow", "Drop", or "Require Security".
Status	Displays the status of the IPsec policy as "Active" or "Inactive".

To configure IPsec policies, select the desired IPsec policy, and then click [Change] to open the "IPsec Policy Settings" page. The following settings can be made on the "IPsec Policy Settings" page.

IP Policy Settings

Item	Description
No.	Specify a number between 1 and 10 for the IPsec policy. The number you specify will determine the position of the policy in the IPsec Policy List. Policy searching is performed according to the order of the list. If the number you specify is already assigned to another policy, the policy you are configuring will take the number of the earlier policy, and the earlier policy and any subsequent policies will be renumbered accordingly.
Activity	Select whether to enable or disable the policy.
Name	Enter the name of the policy. Can contain up to 16 characters.
Address Type	Select IPv4 or IPv6 as the type of IP address to be used in IPsec communication.
Local Address	Displays the IP address of this printer.
Remote Address	Enter the IPv4 or IPv6 address of the device with which to communicate. Can contain up to 39 characters.
Prefix Length	Enter the prefix length of the Remote Address, using a value between 1 and 128. If this setting is left blank, "32" (IPv4) or "128" (IPv6) will be automatically selected.

Item	Description
Action	Specify how the IP packets are processed from the following: • [Allow]: IP packets are both sent and received without IPsec applied to them. • [Drop]: IP packets are discarded. • [Require Security]: IPsec is applied to IP packets that are both sent and received. If you have selected [Require Security], you must configure [IPsec Settings] and [IKE Settings].

IPsec Settings

Item	Description
Encapsulation Type	Specify the encapsulation type from the following: • [Transport]: Select this mode to secure only the payload section of each IP packet when communicating with IPsec compliant devices. • [Tunnel]: Select this mode to secure every section of each IP packet. We recommend this type for communication between security gateways (such as VPN devices).
Security Protocol	Select the security protocol from the following: • [AH]: Establishes secure communication that supports authentication only. • [ESP]: Establishes secure communication that supports both authentication and data encryption. • [ESP&AH]: Establishes secure communication that supports both data encryption and authentication of packets, including packet headers. Note that you cannot specify this protocol when [Tunnel] is selected for [Encapsulation Type].
Authentication Algorithm for AH	Specify the authentication algorithm to be applied when [AH] or [ESP&AH] is selected for [Security Protocol] from the following: [MD5], [SHA1]
Encryption Algorithm for ESP	Specify the encryption algorithm to be applied when [ESP] or [ESP&AH] is selected for [Security Protocol] from the following: [None], [DES], [3DES], [AES-128], [AES-192], [AES-256]

Item	Description
Authentication Algorithm for ESP	Specify the authentication algorithm to be applied when [ESP] is selected for [Security Protocol] from the following: [MD5], [SHA1]
Life Time	Specify the life time of the IPsec SA (Security Association) as a time period or data volume. The SA will expire when the time period you specify elapses or the volume of data you specify reaches the volume carried. If you specify both a time period and a data volume, the SA will expire as soon as either is reached, and a new SA will then be obtained by negotiation. To specify the life time of the SA as a time period, enter a number of seconds. To specify the life time of the SA as a data volume, enter a number of KBs.
Key Perfect Forward Secrecy	Select whether to enable or disable PFS (Perfect Forward Secrecy).

IKE Settings

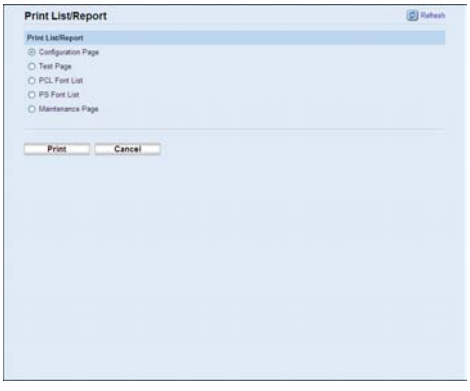
Item	Description
IKE Version	Displays the IKE version.
Encryption Algorithm	Specify the encryption algorithm from the following: [DES], [3DES], [AES-128], [AES-192], [AES-256]
Authentication Algorithm	Specify the authentication algorithm from the following: [MD5], [SHA1]
IKE Life Time	Specify the life time of the ISAKMP SA as a time period. Enter a number of seconds.
IKE Diffie-Hellman Group	Select the IKE Diffie-Hellman Group to be used in the generation of the IKE encryption key from the following: [DH1], [DH2]
Pre-Shared Key	Specify the PSK (Pre-Shared Key) to be used for authentication of a communicating device. Can contain up to 32 characters.
Key Perfect Forward Secrecy	Select whether to enable or disable PFS (Perfect Forward Secrecy).

Reference

- For details about IPsec, see p.128 "Transmission Using IPsec".

Printing Lists/Reports

Click [Print List/Report] to display the page for printing reports. Then, select an item and click [Print] to print out information for that item.



Print List/Report

Item	Description
Configuration Page	Prints general information about the printer and its current configuration.
Test Page	Prints a test page for checking the printing condition.
PCL Font List	Prints the current configuration and installed PCL font list.
PS Font List	Prints the current configuration and installed PostScript font list.
Maintenance Page	Prints the maintenance page.

Note

- Reports cannot be printed via Web Image Monitor if other jobs are printing. Before printing reports, confirm that printer is not printing.
- Reports will be printed on A4 or Letter size paper. Load one of these sizes of paper into the priority tray before printing reports.

Reference

- For details about priority tray settings, see p.80 "Configuring the Paper Settings".
- For details about loading paper, see "Loading Paper" Hardware Guide.

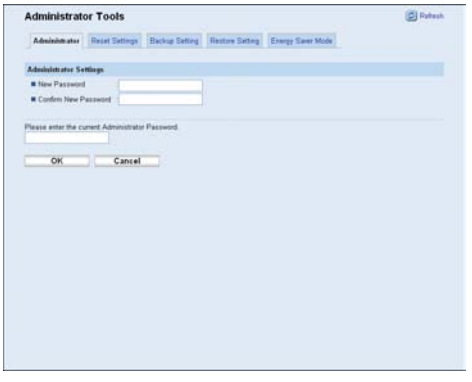
Configuring the Administrator Settings

Click [Administrator Tools] to display the page for configuring the administrator settings.

This page contains the following tabs: [Administrator], [Reset Settings], [Backup Setting], [Restore Setting], and [Energy Saver Mode].

Configuring the Administrator Password

Click the [Administrator] tab on the administrator settings page to configure the administrator password.

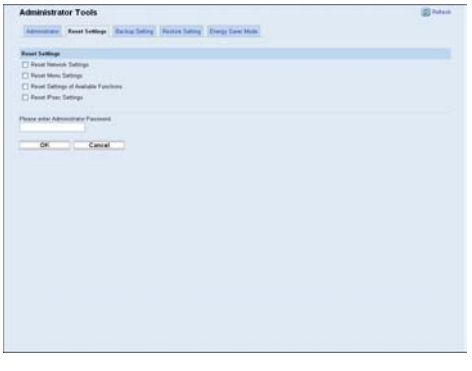


Administrator Settings

Item	Description
New Password	Enter the new administrator password. Can contain up to 16 characters.
Confirm New Password	Enter the same password again, to confirm.

Resetting the Printer's Settings

Click the [Reset Settings] tab on the administrator settings page to reset the printer's settings.



Reset Settings

Item	Description
Reset Network Settings	Select to restore network settings to their defaults.
Reset Menu Settings	Select to restore settings that are not related to the network.
Reset Settings of Available Functions	Select to clear the user restriction settings.
Reset IPsec Settings	Select to clear the IP security settings.

Note

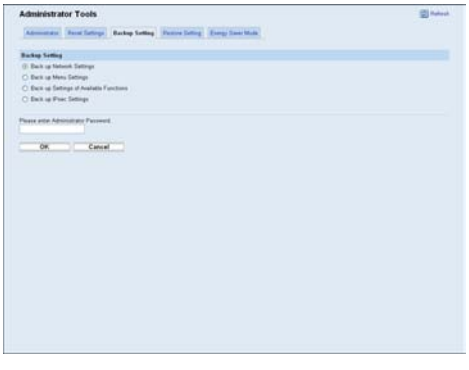
- [Reset IPsec Settings] appears only when a password is specified in [Administrator].

Backing Up the Printer's Settings

Click the [Backup Setting] tab on the administrator settings page to create backup files containing the printer's configuration settings. If necessary, these backup files can be used to restore previous configurations.

Important

- **When sending the printer for repair, it is important that you create backup files in advance. The printer's settings are returned to the default after repair.**



Backup Setting

Item	Description
Back up Network Settings	Backs up the network settings.
Back up Menu Settings	Backs up settings that are not related to the network.

Item	Description
Back up Settings of Available Functions	Backs up user restriction settings to a file.
Back up IPsec Settings	Backs up the IP security settings to a file.

Follow the procedure below to create configuration backup files.

1. **Select the radio button for the type of data you wish to back up.**
2. **Enter the administrator password if required.**
3. **Click [OK].**
4. **Click [Save] in the confirmation dialog box.**
5. **Navigate to the location to save the backup file.**
6. **Specify a name for the file, and click [Save].**

Note

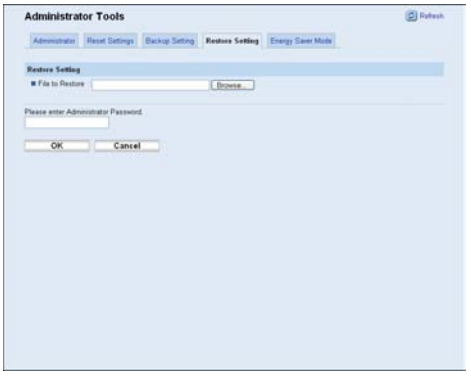
- [Back up IPsec Settings] appears only when a password is specified in [Administrator].

Restoring the Printer's Settings from a Backup File

Click the [Restore Setting] tab on the administrator settings page to restore the printer's settings from a previously created backup file.

Important

- **When the printer is returned from repair, it is important that you restore the printer's settings from the backup files. The printer's settings are returned to the default after repair.**



Restore Setting

Item	Description
File to Restore	Enter the path and name of the file to restore, or click [Browse] to select the file.

Follow the procedure below to restore configuration backup files.

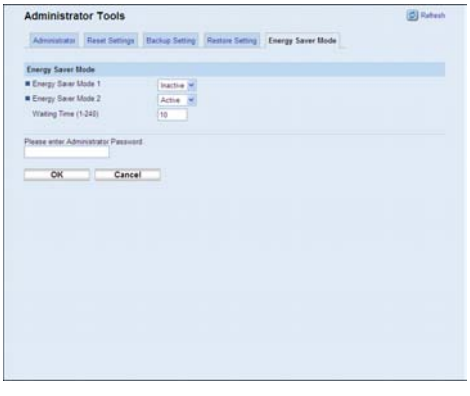
1. **Click [Browse].**
2. **Navigate to the directory containing the backup file to restore.**
3. **Select the backup file, and click [Open].**
4. **Enter the administrator password if required.**
5. **Click [OK].**

Note

- If the settings are not restored successfully, an error message appears. Try again to restore the file completely.

Configuring the Energy Saver Mode Settings

Click the [Energy Saver Mode] tab on the administrator settings page to set the printer to enter Energy Saver mode, Energy Saver mode 1 or Energy Saver mode 2, to reduce power consumption.



Energy Saver Mode

Item	Description
Energy Saver Mode 1	Select [Active] to set the printer to enter Energy Saver mode 1 if the printer has been idle for about 30 seconds. It takes less time to recover from Energy Saver mode 1 than from power-off state or Energy Saver mode 2, but power consumption is higher in Energy Saver mode 1 than in Energy Saver mode 2.
Energy Saver Mode 2	Select [Active] to set the printer to enter Energy Saver mode 2 after the period of time specified for [Waiting Time (1-240)] is passed (1 to 240 minutes). The printer consumes less power in Energy Saver mode 2 than in Energy Saver mode 1, but it takes longer to recover from Energy Saver mode 2 than from Energy Saver mode 1.

Note

- The printer recovers from Energy Saver mode when it receives a print job or when any key on the printer is pressed.

Printer Status Notification by E-Mail

Whenever a toner cartridge becomes empty or paper is jammed, an e-mail alert is issued to the registered addresses to notify the printer status.

Important

- **This function is available only if you are using this printer in a network environment.**
- **Depending on your e-mail application, a phishing warning might appear after you receive an e-mail message. To prevent phishing warnings appearing after you receive an e-mail from a specified sender, you must add the sender to your e-mail application's exclusion list. For details about how to do this, refer to your e-mail application's Help.**

For this notification, you can make the e-mail notification settings.

You can be notified of the following events:

- Paper Jam
- Toner Low
- No Toner
- No Paper
- Service Required
- Cover Open

Also you can see the information of the printer, such as printer name and serial number.

1. **Start the Web browser, and access the printer by entering its IP address.**
2. **In the menu area, click [Network Settings].**

   The "Network Settings" page appears.
3. **Click the [Auto E-mail Notification] tab.**
4. **Enter a sender name for alert e-mail and the address of the recipient of the alert e-mail.**

   You can set up to 2 e-mail notification settings.
5. **Select the checkbox in which event you want to notify.**
6. **Enter the administrator password if required.**
7. **Click [OK].**

Mail Authentication

You can configure mail authentication to prevent illegal use of the mail server.

When mail is sent to the SMTP server, authentication is performed using the SMTP AUTH protocol by prompting the mail originator to enter the user name and password.

Use the following procedure to specify SMTP authentication.

1. **Start the Web browser, and access the printer by entering its IP address.**
2. **In the menu area, click [Network Settings].**

   The "Network Settings" page appears.
3. **Click the [SMTP] tab.**
4. **Make the following settings:**
   - Authentication Method: Select [SMTP] or [POP before SMTP].
   - User Name: Enter the user name for SMTP Authentication.
   - Password: Enter the password set for the SMTP User Name.
   - Device E-mail Address: Enter the e-mail address.
5. **Enter the administrator password if required.**
6. **Click [OK].**
7. **Quit Web Image Monitor.**

SNMP

You can use the SNMP manager to obtain information about the printer.

The SNMP agent operating on UDP is built into the Ethernet board that is installed in this printer.

Important

- **If you change the printer's community name, use Web Image Monitor to change the computer's settings accordingly.**

Note

- The default community name is [public]. You can use this community name to obtain MIB information.

Reading the Configuration Page

The configuration page contains the information shown below.

System Reference

- Machine ID

  Shows the serial number assigned to the printer by the manufacturer.
- Total Memory

  Shows the total amount of memory installed on the printer.
- Firmware Version

  Shows the version of the printer's firmware.
- Printer Language

  Shows the version number of the printer driver language.
- Attached Equipment

  Shows the options attached to the printer.
- Toner Status

  Shows the information about toner levels.
- Supplies Status

  Shows the information about supply levels.

Paper Input

Shows settings made in the [Paper Input] menu. For details, see “Paper Input Menu”.

Maintenance

- Horizontal: Tray 2
- Vertical: Tray 2
- Vertical: Bypass Tray

System

Shows settings made in the [System] menu. For details, see “System Menu”.

Host Interface

Shows settings made in the [Host Interface] menu. For details, see “Host Interface Menu”.

PCL Menu

Shows settings made in the [PCL Menu]. For details, see “PCL Menu”.

PS Menu

Shows settings made in the [PS Menu]. For details, see “PS Menu”.

Interface Information

Shows interface information.

Counter List

Shows counter information.

Error Log

Shows the error log.

IPv6 Configuration

Shows the IPv6 settings. For details, see “Host Interface Menu”.

Note

- The configuration page can be printed using the control panel or Web Image Monitor. For details, see "Printing the Configuration Page" or "Printing Lists/Reports".

Reference

- p.50 "Paper Input Menu"
- p.57 "System Menu"
- p.60 "Host Interface Menu"
- p.65 "PCL Menu"
- p.68 "PS Menu"
- p.53 "Printing the Configuration Page"
- p.101 "Printing Lists/Reports"

7. Using a Print Server

This chapter explains how to configure this printer to work as a network printer.

Preparing Print Server

This section explains how to configure this printer as a Windows network printer.

The printer is configured to enable network clients to use it.

Important

- **Under Windows XP Professional or Windows Server 2003/2003 R2/2008/2008 R2, to change printer properties in the [Printer] folder, you need Printer Management access authentication; under Windows Vista/7, Full Control access authentication. Log on to the file server as an Administrator group.**

1. **Open the [Printers and Faxes] window from the [Start] menu.**

   The [Printers and Faxes] window appears.

   Under Windows Vista or Windows Server 2008, open the [Printers] window.

2. **Click the icon of this printer. On the [File] menu, click [Properties].**

   The printer properties appears.

3. **On the [Sharing] tab, click [Share this printer].**

4. **To share this printer with users using a different version of Windows, click [Additional Drivers...].**

   If you have installed an alternative driver by selecting [Share this Printer] during the printer driver installation, this step can be ignored.

5. **On the [Advanced] tab, click the [Printing Defaults...] button. Specify the default values for the printer driver that will be distributed to client computers, and then click [OK].**

6. **Click [OK] to close the printer properties.**

8. Special Operations under Windows

Printing Files Directly from Windows

You can print files directly using Windows commands; "lpr" or "ftp".

Setup

Use the following procedure to make network environment settings.

1. **Enable TCP/IP using the control panel, and then set up the printer's network environment about TCP/IP including IP addresses.**

   TCP/IP of the printer is set as default.

2. **Install a TCP/IP in Windows to set up the network environment.**

   Consult the network administrator for the local setting information.

3. **To print, install "Printing service for UNIX" as the network application.**

Reference

- For details about setting an IP address, see Hardware Guide.
- For details about setting an IP address of the printer using DHCP, see p.134 "Using DHCP".
- This completes the setup for specifying a printer using an IPv4 address when printing. When using a host name to specify a printer, proceed to p.115 "Using a Host Name Instead of an IPv4 Address" and continue the setup.

Using a Host Name Instead of an IPv4 Address

When a host name is defined, you can specify a printer by host name instead of an IPv4 address. The host names vary depending on the network environment.

When using DNS

Use the host name set to the data file on the DNS server.

When setting the IPv4 address of a printer using DHCP

Use the printer name on the configuration page as the host name.

Reference

- For details about printing configuration page using the control panel, see p.53 "Printing the Configuration Page".
- For details about printing configuration page using Web Image Monitor, see p.101 "Printing Lists/ Reports".

In other cases

Add the IPv4 address and host name of the network printer to the hosts file on the computer used for printing.

1. **Open the hosts file using memo pad files, for instance.**

   The hosts file is in the following location:

   \WINDOWS\SYSTEM32\DRIVERS\ETC\HOSTS

2. **Add an IPv4 address and host name to the hosts file using the following format:**

   192.168.15.16 host# NP

   "192.168.15.16" is the IPv4 address, "host" is this printer's host name, and "#NP" is replaced by comments. Insert a space or tab between "192.168.15.16" and "host", between "host" and "#NP" respectively, using one line for this format.

3. **Save the file.**

8

Printing Commands

The following explains printing operations using the "lpr" and "ftp" commands.

Enter commands using the command prompt window. The location of the command prompt varies depending on operating systems:

- Windows XP/Vista/7, Windows Server 2003/2003 R2/2008/2008 R2

  [Start] - [All Programs] - [Accessories] - [Command Prompt]

Note

- Match the data format of the file to be printed with the emulation mode of this printer.
- If the message "print requests full" appears, no print jobs can be accepted. Try again when sessions end. For each command, the amount of possible sessions is indicated as follows:
  - lpr: 10
- Enter the file name in a format including the path from the directory executing commands.

Reference

- The "option" specified in a command is an intrinsic printer option and its syntax is similar to printing from UNIX.

lpr

When specifying a printer by an IP address

c:\> lpr -Sprinter's IP address -Pprinter name [-ol] \pass name\file name

When specifying a printer by host name instead of an IP address

c:\> lpr -Sprinter host name -Pprinter's name [-ol] \pass name\file name

To print a binary file, include the "-ol" switch (a dash followed by a lowercase O and L) after the printer name.

ftp

Use the "put" or "mput" command according to the number of files to be printed.

When one file is printed

ftp> put \pass name\file name [option]

When multiple files are printed

ftp> mput \pass name\file name [\pass name\file name...] [option]

1. **Formulate the printer's IP address or the host name of the hosts file printer as an argument and use the "ftp" command.**

   % ftp printer's IP address

2. **Enter the user name and password, and then press the [OK] key.**

   User: sysadm

   Password: sysadm

3. **When printing a binary file, set the file mode to binary.**

   ftp> bin

   When printing a binary file in ASCII mode, print may not come out correctly.

4. **Specify files to be printed.**

   The following shows the examples of printing a PostScript file named "file 1" in the "C:\PRINT" directory and printing file 1 and file 2.

   ftp> put C:\PRINT\file1 filetype=RPS

   ftp> mput C:\PRINT\file1 C:\PRINT\file2

5. **Quit ftp.**

   ftp> bye

Note

- "=", ",", "_", and ";"cannot be used for file names. File names will be read as option strings.
- For "mput" command, option can not be defined.
- For "mput" command, "*" and "?" can be used as wild cards in file names.
- When printing a binary file in ASCII mode, print may not come out correctly.

9. Mac OS X Configuration

This chapter explains how to use this printer under Mac OS X.

The example procedures in this chapter explain configuration under Mac OS X 10.4.

The procedure might be different according to the version of OS.

Setting Up the PPD File

1. **Start [Printer Setup Utility].**

   Under Mac OS X 10.3, click [Print & FAX] in [System Preferences], and then click [Set Up Printers...].

   Under Mac OS X 10.5, start [System Preferences] and click [Print & FAX].

2. **Click [Add] or [+] button.**

   - Mac OS X 10.3

     Click [Rendezvous] on the first pop-up menu.

   - Mac OS X 10.4

     Click [More Printers...]. Then select the zone from the second pop-up menu.

   - Mac OS X 10.5

     Click [Default]. If the printer name is not displayed, select the icon that corresponds to your network environment.

3. **Select the printer, and then select its manufacturer from the [Print Using] pop-up menu.**

   Under Mac OS X 10.3, manufacturer from the [Printer Model:] pop-up menu.

   Under Mac OS X 10.5, select the printer you are using from the [Printer Name] list.

4. **Select the connected printer from the list of printer models, and then click [Add].**

5. **Quit [Printer Setup Utility].**

Setting Up Options

Use this procedure to configure the printer's options.

1. **From the Apple menu, select [System Preferences...].**
2. **Under "Hardware", click [Print & Fax].**
3. **Select the printer from "Printer", and then click [Printer Setup...].**
4. **In the [Printer Info] dialog box, select [Installable Options] from the list.**
5. **Check the tray 2 configuration, and then click [Apply Changes].**
6. **Click the close button at the upper left corner to close the [Printer Info] dialog box.**
7. **From the [System Preferences] menu, click [Quit System Preferences].**

Note

- If the option you want to select is not displayed, PPD files may not be set up correctly. To complete the setup, check the name of the PPD file displayed in the dialog box.

Setting Up for Printing

Use the following procedures to configure the printer.

Making Paper Settings from an Application

1. **Open the file you want to print.**
2. **On the [File] menu, click [Page Setup...].**
3. **Check that the printer you want to use is displayed in [Format for], and then select the paper size you want to use in [Paper Size].**

   If this printer is not displayed in [Format for], select the printer you want to use.
4. **Configure the settings, and then click [OK].**

Reference

- The [Page Setup...] dialog box varies depending on the application you use. For details, see the manuals provided with the Mac OS X.

Printing from an Application

1. **Open the file you want to print.**
2. **On the [File] menu, click [Print...].**
3. **In the [Printer] list, select the printer.**
4. **Configure the print settings, and then click [Print].**

Canceling a Print Job from the Computer

1. **From the Apple menu, select [System Preferences...].**
2. **Under "Hardware", click [Print & Fax].**
3. **Double-click the printer from "Printer".**
4. **Select the print job you want to cancel, and then click [Delete].**

Note

- If the printer is shared by multiple computers, be careful not to cancel a print job of other user.
- You cannot stop printing data that has already been processed. For this reason, printing may continue for a few pages after you cancel printing.
- To stop a large data size print job may take a while.

Using PostScript 3

Use the PostScript 3 driver to print files.

You can use the following functions if [Printer Features] is selected in the [Print] dialog:

Paper Type

Use this function to select the paper type.

In the [Feature Sets] list, select [Paper Type], and then, in the [Media Type] list, select the paper type you want to use for printing.

Duplex

Use this function to print on both sides of sheets. In the drop-down menu, select [Layout], and then specify the binding pattern in the [Two-Sided] area. Both short edge and long edge binding is possible with this function.

Print Quality

Use this function to select the print quality.

In the [Feature Sets] list, select [Imaging], and then, in the [Print Quality] list, select the print quality.

You can select [Standard], [High Quality], or [Best Quality].

Color Profile

Use this function to select the color profile pattern.

In the [Feature Sets] list, select [Imaging], and then, in the [Color Profile] list, select the color profile pattern.

You can select [Off], [Presentation], [Solid Color], or [Photographic].

CMYK Simulation Profile

Use this function to simulate the color tone of the printing ink.

In the [Feature Sets] list, select [Imaging], and then, in the [CMYK Simulation Profile] list, select the printing ink standard.

You can select the printing ink standard from [Off], [US OffsetPrint], [Euroscale], or [PaletteColor].

Black Over Print

Use this function to specify whether or not to print black over other colors.

To enable black text over print, in the [Feature Sets] list, select [Imaging]. Then, set [Black Over Print] to [On].

Dithering

Use this function to specify the rendering mode.

In the [Feature Sets] list, select [Dithering], and then, in the [Dithering] list, select the rendering mode.

You can select [Automatic], [Photographic], or [Text].

Color/ Black and White

Use this function to specify whether the document is printed in color or black and white.

In the [Feature Sets] list, select [Toner 1], and then, in the [Color/ Black and White] list, select the toner color.

You can select [Color] or [Black and White].

Gray Reproduction

Use this function to select the black color mode for text and line art.

In the [Feature Sets] list, select [Toner 1], and then, in the [Gray Reproduction] list, select the black color mode.

You can select [Black by K] or [CMY+K].

Economy Color

Use this function to reduce the amount of toner used when printing.

To reduce toner consumption, in the [Feature Sets] list, select [Toner 1]. Then set [Economy Color] to [On].

Print Blank Pages

Use this function to print blank pages.

To print blank pages, in the [Feature Sets] list, select [Toner 1]. Then set [Print Blank Pages] to [On].

Front Cover

Use this function to insert cover sheets.

In the [Feature Sets] list, select [Cover], and then, in the [Front Cover] list, select the cover sheet type.

You can select [Off], [Leave Blank], [One Side], or [Both Sides].

Front Cover Input

Use this function to select the tray which the cover sheet is fed from.

In the [Feature Sets] list, select [Cover], and then, in the [Front Cover Input] list, select the cover sheet tray.

You can select [Bypass Tray], [Tray 1], or [Tray 2].

Watermark Type

Use this function to select the watermark style.

In the [Feature Sets] list, select [Watermark Text], and then select the watermark type in the list.

You can select [Outlined], [Solid], or [Transparent Text].

Watermark Text

Use this function to select the watermark text.

In the [Feature Sets] list, select [Watermark Text], and then select the watermark text in the list.

You can select the following text:

- CONFIDENTIAL
- TOP SECRET
- COPY
- DRAFT
- FINAL
- FILE COPY
- PROOF

Watermark Font Size (points)

Use this function to select the watermark font size.

In the [Feature Sets] list, select [Watermark Text], and then, select the watermark font size in the list.

Watermark Font Typeface

Use this function to select the watermark font typeface.

In the [Feature Sets] list, select [Watermark Text], and then, select the watermark typeface.

Watermark Font Shading

Use this function to select the watermark font shading.

In the [Feature Sets] list, select [Watermark Text], and then, select the watermark font shading in the list.

Watermark Position

Use this function to select the watermark position.

In the [Feature Sets] list, select [Watermark Location]. Then, in the [Watermark Position (Horizontal)] and [Watermark Position (Vertical)] lists, select the horizontal and vertical positions, respectively.

Watermark Angle

Use this function to select the watermark angle.

In the [Feature Sets] list, select [Watermark Location], and then, select the watermark angle in the list.

Watermark

Use this function to select which page(s) to print the watermark on.

In the [Feature Sets] list, select [Watermark Location], and then, in the [Watermark] list, select which page(s) you want to print the watermark on.

You can select [Off], [First Page Only], or [All Pages].

10. Appendix

Functions and Network Settings Available in an IPv6 Environment

The functions and network settings of this printer that are available in an IPv6 environment differ from those available in an IPv4 environment. Make sure the functions you use are supported in an IPv6 environment, and then configure the necessary network settings.

Reference

- For details about specifying the IPv6 settings, see p.60 "Host Interface Menu" or p.86 "Configuring the Network Settings".

Available Functions

Print via FTP

Prints documents via FTP using the EPRT and EPSV commands. Windows Vista/7 and an FTP application that supports IPv6 are required to use these commands.

Printer

Prints documents using the printer driver.

Bonjour

Allows the printer to communicate with Bonjour protocol-supported computers on the network. The IP address of the multi-cast group supported by IPv6 is ff02::fb.

Web Image Monitor

Allows you to check the printer's status and configure its settings using a Web browser.

Configuration Page

Prints a configuration page that shows you the printer's configuration, IP address, and other details.

Transmission Using IPsec

For securer communications, this printer supports the IPsec protocol. When applied, IPsec encrypts data packets at the network layer using shared key encryption. The printer uses encryption key exchange to create a shared key for both sender and receiver. To achieve even higher security, you can also renew the shared key on a validity period basis.

Important

- **IPsec is not applied to data obtained through DHCP, DNS, or WINS.**
- **IPsec compatible operating systems are Windows XP SP2, Windows Vista/7, Windows Server 2003/2003 R2/2008/2008 R2, Mac OS X 10.4.8 and later, Red Hat Enterprise Linux WS 4.0, and Solaris 10. However, some setting items are not supported depending on the operating system. Make sure the IPsec settings you specify are consistent with the operating system's IPsec settings.**
- **If you cannot access Web Image Monitor due to IPsec configuration problems, disable IPsec under [Network Setting] on the control panel, and then access Web Image Monitor.**

Reference

- For details about specifying the IPsec settings using Web Image Monitor, see p.95 "Configuring the IPsec Settings".
- For details about enabling and disabling IPsec using the control panel, see p.133 "Enabling and Disabling IPsec Using the Control Panel".

Encryption and Authentication by IPsec

IPsec consists of two main functions: the encryption function, which ensures the confidentiality of data, and the authentication function, which verifies the sender of the data and the data's integrity. This printer's IPsec function supports two security protocols: the ESP protocol, which enables both of the IPsec functions at the same time, and the AH protocol, which enables only the authentication function.

ESP Protocol

The ESP protocol provides secure transmission through both encryption and authentication. This protocol does not provide header authentication.

- For successful encryption, both the sender and receiver must specify the same encryption algorithm and encryption key. The encryption algorithm and encryption key are specified automatically.
- For successful authentication, the sender and receiver must specify the same authentication algorithm and authentication key. The authentication algorithm and authentication key are specified automatically.

AH Protocol

The AH protocol provides secure transmission through authentication of packets only, including headers.

- For successful authentication, the sender and receiver must specify the same authentication algorithm and authentication key. The authentication algorithm and authentication key are specified automatically.

AH Protocol + ESP Protocol

When combined, the ESP and AH protocols provide secure transmission through both encryption and authentication. These protocols provide header authentication.

- For successful encryption, both the sender and receiver must specify the same encryption algorithm and encryption key. The encryption algorithm and encryption key are specified automatically.
- For successful authentication, the sender and receiver must specify the same authentication algorithm and authentication key. The authentication algorithm and authentication key are specified automatically.

Note

- Some operating systems use the term "Compliance" in place of "Authentication".

Security Association

This printer uses encryption key exchange as the key setting method. With this method, agreements such as the IPsec algorithm and key must be specified for both sender and receiver. Such agreements form what is known as an SA (Security Association). IPsec communication is possible only if the receiver's and sender's SA settings are identical.

The SA settings are auto-configured on both parties' printers. However, before the IPsec SA can be established, the ISAKMP SA (Phase 1) settings must be auto-configured. When this is done, the IPsec SA (Phase 2) settings, which allow actual IPsec transmission, will be auto-configured.

Also, for further security, the SA can be periodically auto updated by applying a validity period (time limit) for its settings. This printer only supports IKEv1 for encryption key exchange.

Multiple settings can be configured in the SA.

Settings 1-10

You can configure ten separate sets of SA details (such as different shared keys and IPsec algorithms).

IPsec policies are searched through one by one, starting at [No.1].

Encryption Key Exchange Settings Configuration Flow

This section explains the procedure for specifying encryption key exchange settings.

Printer	PC
1. Set the IPsec settings on Web Image Monitor.	1. Set the same IPsec settings as the printer on PC.
2. Enable IPsec settings.	2. Enable IPsec settings.
3. Confirm IPsec transmission.	

Note

- After configuring IPsec, you can use "ping" command to check if the connection is established correctly. Also, because the response is slow during initial key exchange, it may take some time to confirm that transmission has been established.
- If you cannot access Web Image Monitor due to IPsec configuration problems, disable IPsec on the control panel, and then access Web Image Monitor.

Reference

- p.133 "Enabling and Disabling IPsec Using the Control Panel"

Specifying Encryption Key Exchange Settings

Important

- To display [IPsec Settings] menu, specifying an administrator password is required.

1. Start the Web browser, and access the printer by entering its IP address.
2. Click [IPsec Settings].
3. Click the [IPsec Policy List] tab.
4. Select the number of the setting you want to modify in the list, and then click [Change].
5. Modify the IPsec related settings as necessary.
6. Enter the administrator password, and then click [Apply].
7. Click the [IPsec Global Settings] tab, and then select [Active] in [IPsec Function].
8. If necessary, specify [Default Policy], [Broadcast and Multicast Bypass], and [All ICMP Bypass] also.
9. Enter the administrator password, and then click [Apply].

Specifying IPsec Settings on the Computer

Specify exactly the same settings for IPsec SA settings on your computer as are specified for the IPsec Settings on the printer. Setting methods differ according to the computer's operating system. The following procedure is based on Windows XP in an IPv4 environment as an example.

1. **On the [Start] menu, click [Control Panel], [Performance and Maintenance], and then click [Administrative Tools].**
2. **Double-click [Local Security Policy].**
3. **Click [IP Security Policies on Local Computer].**
4. **In the "Action" menu, click [Create IP Security Policy].**

   The IP Security Policy Wizard appears.
5. **Click [Next].**
6. **Enter a security policy name in "Name", and then click [Next].**
7. **Clear the "Activate the default response rule" check box, and then click [Next].**
8. **Select "Edit properties", and then click [Finish].**
9. **In the "General" tab, click [Advanced].**
10. **In "Authenticate and generate a new key after every", enter the same validity period (in minutes) that is specified on the printer in [IKE Life Time], and then click [Methods].**
11. **Confirm that the Encryption Algorithm ("Encryption"), Hash Algorithm ("Integrity"), and IKE Diffie-Hellman Group ("Diffie-Hellman Group") settings in "Security method preference order" all match those specified on the printer in [IKE Settings].**

    If the settings are not displayed, click [Add].
12. **Click [OK] twice.**
13. **Click [Add] in the "Rules" tab.**

    The Security Rule Wizard appears.
14. **Click [Next].**
15. **Select "This rule does not specify a tunnel", and then click [Next].**
16. **Select the type of network for IPsec, and then click [Next].**
17. **Select "Use this string to protect the key exchange (preshared key)", and then enter the same PSK text specified on the printer with the pre-shared key.**
18. **Click [Next].**
19. **Click [Add] in the IP Filter List.**
20. **In [Name], enter an IP Filter name, and then click [Add].**

    The IP Filter Wizard appears.
21. **Click [Next].**

22. **Select "My IP Address" in "Source address", and then click [Next].**
23. **Select "A specific IP Address" in "Destination address", enter the printer's IP address, and then click [Next].**
24. **For the IPsec protocol type, select "Any", and then click [Next].**
25. **Click [Finish].**
26. **Click [OK].**
27. **Select the IP filter that you have just created, and then click [Next].**
28. **Select the IPsec security filter, and then click [Edit].**
29. **In the "Security Methods" tab, check "Negotiate security" and then click [Add].**
30. **Select "Custom" and click [Settings].**
31. **When [ESP] is selected for the printer in [Security Protocol] under [IPsec Settings], select [Data integrity and encryption (ESP)], and configure the following settings:**

    Set the value of [Integrity algorithm] to the same value as the [Authentication Algorithm for ESP] specified on the printer.

    Set the value of [Encryption algorithm] to the same value as the [Encryption Algorithm for ESP] specified on the printer.
32. **When [AH] is selected for the printer in [Security Protocol] under [IPsec Settings], select [Data and address integrity without encryption (AH)], and configure the following settings:**

    Set the value of [Integrity algorithm] to the same value as the [Authentication Algorithm for AH] specified on the printer.

    Clear the [Data integrity and encryption (ESP)] check box.
33. **When [ESP&AH] is selected for the printer in [Security Protocol] under [IPsec Settings], select [Data and address integrity without encryption (AH)], and configure the following settings:**

    Set the value of [Integrity algorithm] under [Data and address integrity without encryption (AH)] to the same value as [Authentication Algorithm for AH] specified on the printer.

    Set the value of [Encryption algorithm] under [Data integrity and encryption (ESP)] to the same value as [Encryption Algorithm for ESP] specified on the printer.
34. **In the Session key settings, select "Generate a new key every", and enter the same validity period (in seconds or Kbytes) as that specified for [Life Time] on the printer.**
35. **Click [OK] three times.**
36. **Click [Next].**
37. **Click [Finish].**

    If you are using IPv6 under Windows Vista or a newer version of Windows, you must repeat this procedure from step 13 and specify ICMPv6 as an exception. When you reach step 24, select

[58] as the protocol number for the "Other" target protocol type, and then set [Negotiate security] to [Permit].

38. **Click [OK].**
39. **Click [Close].**

    The new IP security policy (IPsec settings) is specified.

40. **Select the security policy that you have just created, right click on it, and then click [Assign].**

    IPsec settings on the computer are enabled.

Note

- To disable the computer's IPsec settings, select the security policy, right click, and then click [Unassign].

Enabling and Disabling IPsec Using the Control Panel

1. **Press the [Menu] key.**
2. **Press the [▲][▼] keys to select [Host Interface], and then press the [OK] key.**
3. **Press the [▲][▼] keys to select [Network Setting], and then press the [OK] key.**
4. **Press the [▲][▼] keys to select [IPsec], and then press the [OK] key.**
5. **Press the [▲][▼] keys to select [On] or [Off], and then press the [OK] key.**
6. **Press the [Menu] key to return to the initial screen.**

Note

- You can press the [Escape] key to exit to the previous level of the menu tree.

Cautions to Take When Using in a Network

Using DHCP

You can use this printer in a DHCP environment.

- Supported DHCP servers are those which are included with Windows Server 2003/2003 R2/2008/2008 R2.
- DHCP relay-agent is not supported. If you use DHCP relay-agent on a network via ISDN, it will result in increased line charges. This is because your computer connects to the ISDN line whenever a packet is transferred from the printer.
- If there is more than one DHCP server, use the same setting for all servers.

  The printer operates using data from the DHCP server that responds first.

Using AutoNet

If the printer IPv4 address is not assigned by a DHCP server automatically, a temporary IPv4 address starting with 169.254, which is not used on the network, can be automatically selected by the printer.

If an AutoNet address is set as the printer's IP address, it changes every time you turn on the printer. Configure the TCP/IP settings according to your network environment.

You must change this setting to “on” to use AutoNet.

Note

- The IP address assigned by the DHCP server is given priority over that selected by AutoNet.
- You can confirm the current IPv4 address on the configuration page.
- The printer cannot communicate with devices that do not have the AutoNet function. However, this printer can communicate with Macintosh computers running Mac OS X 10.3 or later.

Using Adobe PageMaker Version 6.0, 6.5, or 7.0

Under Windows operating system environment with Adobe PageMaker, you need to copy PPD files to the PageMaker folder.

PPD files have the ".ppd" extension in the folder

“DRIVERS\PS\XP_VISTA\(Language)\DISK1\” on the CD-ROM.

The third folder “(Language)” may be substituted by an appropriate language name.

Copy the ".ppd" file to the PageMaker folder.

- For PageMaker 6.0 default installation

  The directory is “C:\PM6\RSRC\PPD4”.
- For PageMaker 6.5 default installation

  The directory is “C:\PM65\RSRC\USENGLISH\PPD4”.

  The “USENGLISH” may vary depending on your language selection.
- For PageMaker 7.0 default installation

  The directory is “C:\PM7\RSRC\USENGLISH\PPD4”.

  The “USENGLISH” may vary depending on your language selection.

Note

- If the driver is not set correctly after copying the “.ppd” file, printing may not be performed properly.
- When using PageMaker, the optional features that can be selected by the printer driver will not be active. The following procedure describes how to activate the optional printer features.
  1. On the [File] menu, click [Print].

     The [Print Document] dialog box appears.
  2. Make the necessary settings in the [Features] box.

When Using Windows Terminal Service/ MetaFrame

The following explains how to use Windows Terminal Service and MetaFrame.

Operating Environment

The following operating systems and MetaFrame versions are supported.

Windows Server 2003/2003 R2

- MetaFrame XP 1.0 FR3
- MetaFrame Presentation Server 3.0
- Citrix Presentation Server 4.0

Supported Printer Drivers

When Windows Terminal Service is operating

- PCL printer driver
- PostScript 3

Limitations

The following limitations apply to the Windows Terminal Service environment.

These limitations are built in Windows Terminal Service or MetaFrame.

MetaFrame's [Auto-creating client printers]

Using [Auto-creating client printers], you can select a logical printer created by copying the client's local printer data to the MetaFrame server. We strongly recommend testing this function in your network environment before using it for your work.

- The settings for optional equipment will not be stored in the server after the equipment is disconnected. The settings for optional equipment will be restored to its defaults each time the client computer logs on to the server.
- When printing a large number of bitmap images or using the server in a WAN environment over dial-up lines such as ISDN, printing may not be possible or errors may occur, depending on data transfer rates.
- When using MetaFrame XP 1.0 or higher versions, we recommend making settings in [Client Printer bandwidth] under [Citrix Management Console] according to the environment.

- If a print error occurs on the MetaFrame XP 1.0 SP1/FR1 and the print job or a printer created in [Auto-creating client printers] cannot be deleted, we recommend making settings in [Delete unfinished print jobs] in the registry. For details, see the Readme file provided with MetaFrame.
- If a print error occurs on the MetaFrame XP 1.0 FR2 and the print job or a printer created in [Auto-creating client printers] cannot be deleted, we recommend making settings in [Delete unfinished print jobs at logout] of Citrix Management Console.

MetaFrame's [Printer driver replication]

Using [Printer driver replication], you can distribute printer drivers across all servers in a server farm. We strongly recommend testing this function in your network environment before using it for your work.

- If the printer drivers are not properly copied, install them directly onto each server.

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expat

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  Microsoft® Windows Server® 2008 R2 for Itanium-based Systems

  Microsoft® Windows® Web Server R2 2008

  Microsoft® Windows® HPC Server R2 2008

Note

- PostScript® 3 in this manual stands for "Adobe PostScript 3 Emulation".

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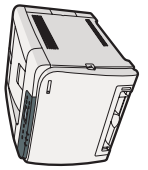

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